

---

## Appendix A

---

**APPENDIX A**

**ANALYTICAL DATA**

**FINAL SITE INSPECTION REPORT**

**FORT BLISS**

**EL PASO, TEXAS**

Note: An electronic copy of the analytical data is provided on the CD in Appendix J.

---

## Appendix B

---

**APPENDIX B**

**DATA VALIDATION REPORTS**

**FINAL SITE INSPECTION REPORT**

**FORT BLISS**

**EL PASO, TEXAS**

**Data Validation Report  
TestAmerica Number: 280-8261-1  
Explosives by Method 8330B**

## REVISED DATA VALIDATION REPORT

Report Date: December 28, 2010  
Project/Site: Fort Bliss Inspection  
Laboratory No: 280-8261-1  
Analyses: Explosives (Nitroaromatics and Nitramines), Method 8330B  
[Note: Includes the results for PETN and Nitroglycerin]

This memo presents the organic data validation report for the data obtained during the field activities for the above referenced work assignment. The purpose of this review is to provide a technical validation of the explosive results by SW-846 Method 8330B for Laboratory No. 280-8261-1 from TestAmerica, Denver, CO. This report consists of the validation of twenty (20) soil and sediment samples collected between October 4, 2010 and October 8, 2010. The field sample numbers and corresponding laboratory numbers are presented below:

Field Sample Number	Laboratory Sample Number
FTBLS-SS001	280-8261-6
FTBLS-SS002	280-8261-14
FTBLS-SS003	280-8261-1
FTBLS-SS004	280-8261-2
FTBLS-IS001	280-8261-15
FTBLS-IS002	280-8261-16
FTBLS-IS003	280-8261-17
FTBLS-IS004	280-8261-18
FTBLS-IS005	280-8261-19
FTBLS-IS006	280-8261-20
FTBLS-IS007	280-8261-7
FTBLS-IS008	280-8261-8
FTBLS-IS009	280-8261-9
FTBLS-IS010	280-8261-10
FTBLS-IS011	280-8261-11
FTBLS-IS012	280-8261-12
FTBLS-IS013	280-8261-13
FTBLS-IS014	280-8261-3
FTBLS-IS015	280-8261-4
FTBLS-IS016	280-8261-5

Validation of the explosives analytical data was based on a combination of project-specific Work Plan/QAPP criteria, DoD QSM (DoD 2009), method-specific criteria following USEPA Test Methods for Evaluating Solid Wastes, SW-846, 4th Edition (Fourth update 2007); USEPA Contract Laboratory Program National Functional Guidelines for Evaluating Organics Analyses, October 1999, modified for the method; and subcontract laboratory SOPs.

Validated By: \_\_\_\_\_ (b) (6) \_\_\_\_\_

Reviewed By: \_\_\_\_\_ (b) (6) \_\_\_\_\_

Full validation (including evaluation of the raw data, analyte quantitation, and data reduction) was performed on samples FTBLS-SS004 and FTBLS-IS010. Cursory validation (QA/QC summary information only) was performed on all remaining samples. The data were evaluated based on the following QA/QC parameters:

- Data Completeness
- Holding Times and Preservation
- Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicates
- Triplicate Sample Analysis
- Field duplicates
- Laboratory Control Samples
- Compound Identification (full validation only)
- Compound Quantitation and Reporting Limits (full validation only)
- Overall Assessment

## Data Completeness

All data necessary to complete data validation on this data package was provided. The data package was resubmitted by the laboratory on December 16, 2010 to include the results for PETN and Nitroglycerin which were not provided in the initial data package submitted on October 29, 2010. This data validation report was revised to incorporate the PETN and Nitroglycerin data.

## Holding Times and Preservation

Analytical holding times were assessed to determine whether the holding time requirements were met by the laboratory. The soil samples were extracted within 14 days of sample collection and the extracts were analyzed within 40 days of extraction. The samples were received at the laboratory in good condition and within the recommended temperature range of  $4 \pm 2$  °C or just below 2 °C, but not frozen.

## Calibrations

The instruments were calibrated at the required frequency. No calculation errors or transcription errors were found.

### *Initial Calibration*

The percent relative standard deviations (%RSDs) for all target compounds in the initial calibration were less than or equal to 20% or the correlation coefficients were greater than 0.990.

### *Continuing Calibration*

The percent differences (%Ds) or percent drifts for the target compounds in the continuing calibrations were less than or equal to the method limit of 20% with the exception noted below.

The %D for 2-amino-4,6-dinitrotoluene at 26.4% exceeded 20% in the October 23, 2010 (0026) continuing calibration standard. As a result of the elevated %D, the following non-detected results were qualified as estimated (UJ):

- 2-Amino-4,6-dinitrotoluene in samples FTBLS-IS014, FTBLS-IS015, FTBLS-IS016, FTBLS-IS008, FTBLS-IS009, and FTBLS-IS010

### Blanks

The method blanks were extracted and analyzed at the required frequency. No contamination was found in the associated method blanks. Summary forms and raw data were evaluated.

### Surrogate Recoveries

The surrogate compound 1,2-dinitobenzene was added to the samples and QC samples. Surrogate recoveries evaluate the effects of the individual sample matrices on analytical efficiency. All surrogate percent recoveries were within the laboratory QC limits (83-122%). Surrogate recoveries were verified from the raw data for the full validation sample.

### Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicates (MS/MSD) analyses were performed on samples FTBLS-SS001, FTBLS-IS001, and FTBLS-IS005. All MS/MSD results were acceptable as the recoveries were within the laboratory QC limits and the relative percent differences (RPDs) were less than 30%. No calculation errors or transcription errors were found.

### TriPLICATE Sample Analysis

A triplicate sample analysis was performed on samples FTBLS-SS004, FTBLS-IS010, and FTBLS-IS012 to evaluate for method precision. Precision was demonstrated as all samples analyses reported non-detected results.

### Field Duplicates

Two field duplicate pairs (samples FTBLS-SS003 / FTBLS-SS004 and samples FTBLS-IS001 / FTBLS-IS012) were collected with these samples to assess for both analytical and sampling precision. All field duplicate results were acceptable because all explosive results were not detected in these samples.

### Laboratory Control Samples

The percent recoveries for the laboratory control sample analyses were within laboratory QC limits with the exception noted below. No calculation errors or transcription errors were found.

The recovery for PETN in the LCS SRM (Certified Reference Material analysis) at 292% exceeded the QC limits of 60-115%. However, no action was required for the elevated recovery as PETN was not detected in the associated samples. All recoveries from the associated LCS were within QC limits

#### Compound Identification (Full Validation Only)

Compound identification was evaluated for samples FTBLS-SS004 and FTBLS-IS010. No problems were found. All explosive results were non-detects.

#### Compound Quantitation and Reporting Limits (Full Validation Only)

Compound quantitation and reporting limits were evaluated for samples FTBLS-SS004 and FTBLS-IS010. The sample results were verified from the raw data for these two samples. The reporting limits were correctly calculated and reported.

#### Overall Assessment

Based on the previous assessment of the analytical results, the data are usable as qualified. The non-detected results for 2-amino-4,6-dinitrotoluene in six samples were qualified as estimated due to exceeded calibration criteria, resulting in a 98% data completeness. No data were rejected, resulting in a 100% usability.

The data were considered representative as all samples were received properly preserved, in good condition, and were analyzed within the specified holding times. The data is considered comparable as the samples were analyzed according to SW-846 Method 8330B requirements and standard analytical protocols. Accuracy was evaluated based on the calibration, surrogate recoveries, matrix spikes, and LCS data. Precision was evaluated by the MS/MSD RPDs, triplicate analysis %RSDs, and field duplicate analyses.

## DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

- U - The analyte was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J - The positive or detected result is an estimated quantity. The associated numerical value is the appropriate concentration of the analyte in the sample.
- J + - The result is an estimated quantity, but the result may be biased high.
- J - - The result is an estimated quantity, but the result may be biased low.
- U J - The analyte was analyzed for, but was not detected above the level of the associated value. (The associated value is either the sample quantitation limit or the sample detection limit.) The reported value is approximate and maybe inaccurate or imprecise.
- N - The analysis indicates that there is presumptive evidence to make a tentatively identification of an analyte.
- N J - The analysis indicates that there is presumptive evidence to make a tentatively identification of an analyte and the associated numerical value represents an approximate concentration.
- R - The data is unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meeting Quality Control criteria. The analyte may or may not be present in the sample.
- NR - Result was not used from a particular sample analysis. This typically occurs when more than one result for an element is reported due to dilutions and reanalyses.

**Data Validation Report  
TestAmerica Number: 280-8621-1  
Metals by Method 6010C**

## DATA VALIDATION REPORT

Report Date: November 5, 2010  
Project/Site: Fort Bliss Inspection  
Laboratory No: 280-8261-1  
Analyses: Metals by Method 6010C  
(barium, copper, magnesium, lead, antimony, potassium, and zinc)

This memo presents the metals data validation report for the data obtained during the field activities for the above referenced work assignment. The purpose of this review is to provide a technical validation of the metals results by SW-846 Methods 6010C for Laboratory No. 280-8261-1 from TestAmerica, Denver, CO. This report consists of the validation of twenty (20) soil and sediment samples collected between October 4, 2010 and October 8, 2010. The field sample numbers and corresponding laboratory numbers are presented below:

Field Sample Number	Laboratory Sample Number
FTBLS-SS001	280-8261-6
FTBLS-SS002	280-8261-14
FTBLS-SS003	280-8261-1
FTBLS-SS004	280-8261-2
FTBLS-IS001	280-8261-15
FTBLS-IS002	280-8261-16
FTBLS-IS003	280-8261-17
FTBLS-IS004	280-8261-18
FTBLS-IS005	280-8261-19
FTBLS-IS006	280-8261-20
FTBLS-IS007	280-8261-7
FTBLS-IS008	280-8261-8
FTBLS-IS009	280-8261-9
FTBLS-IS010	280-8261-10
FTBLS-IS011	280-8261-11
FTBLS-IS012	280-8261-12
FTBLS-IS013	280-8261-13
FTBLS-IS014	280-8261-3
FTBLS-IS015	280-8261-4
FTBLS-IS016	280-8261-5

(b) (6)

Validated By: \_\_\_\_\_

(b) (6)

Reviewed By: \_\_\_\_\_

Data validation was conducted in accordance with the documents "Test Methods for Evaluating Solid Wastes, SW-846, 3rd Edition," (Third update 1996), and the USEPA CLP National Functional Guidelines for Inorganic Data Review, October 2004, modified for the method.

Full validation (including evaluation of the raw data, analyte quantitation, and data reduction) was performed on the samples FTBLS-SS004 and FTBLS-IS010. Cursory validation (QA/QC summary information only) was performed on all remaining samples. The data were evaluated based on the following QA/QC parameters:

- Data Package Completeness
- Holding Times and Preservation
- Calibrations
- Blanks
- Interference Check Samples
- Matrix Spike/Matrix Spike Duplicates
- Duplicate Sample Analysis
- Field duplicates
- Laboratory Control Samples
- Serial Dilution for ICP Analysis
- Analyte Quantitation and Reporting Limits (full validation only)
- Overall Assessment

### Data Package Completeness

All data necessary to complete the data validation was provided.

### Holding Times and Preservation

Analytical holding times were assessed to determine whether the holding time requirements were met by the laboratory. The samples were analyzed within 180 days of collection for these metals. The samples were received at the laboratory in good condition and within the recommended temperature range of  $4 \pm 2$  °C or just below 2 °C, but not frozen.

### Calibrations

The instruments were calibrated at the required frequency. Continuing calibrations (both a mid-level and a low-level CCV) were analyzed every ten samples to verify the instrument calibration throughout the analytical sequence. Summary forms and raw data were evaluated. The reporting limit check standard (CRI) recoveries were within QC limits.

#### *Initial Calibration Verification*

The percent recoveries were within the QC limits of 90-110% for the mid-level standard and within 70-130% for the low-level standard.

#### *Continuing Calibration Verification*

The percent recoveries were within the QC limits of 90-110% for the mid-level standards and within 70-130% for the low-level standards.

### Blanks

The method blanks and calibration blanks were analyzed at the required frequency. Barium, antimony, and magnesium were detected in the laboratory blanks; however, no qualification was required because these analytes were either not detected in the associated samples or the associated sample concentrations were greater than the limit of quantitation or five times the blank value.

### Interference Check Samples

All interference check sample percent recoveries were within 80-120%. No calculation errors were found.

Copper and lead were flagged "Q" by the laboratory to indicate an ICSA check sample problem. The laboratory indicated that copper and lead were detected in the ICSA at concentrations greater than the limit of detection. These analytes are believed to be present in the ICSA solution and no interference is noted. Results are acceptable and no data validation qualifiers were added.

### Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicates (MS/MSD) analyses were performed on sample FTBLS-SS003. A post digestion spike analysis was also performed on sample FTBLS-SS003 and on samples FTBLS-IS014 and FTBLS-IS007. According to the laboratory, a pre-digestion MS/MSD was not prepared and analyzed on the Multi-Incremental Sampling (MIS) collection samples because a MS/MSD sample was not specified on the chain-of-custody. All MS/MSD results were within the QC limits of 75-125% or the unspiked sample amount was greater than four times the spike value with the exception noted below.

The MS/MSD recoveries for antimony (55%/57%) were less than 75%, but greater than 30% and the post digestion spike for antimony at 98% was greater than 75% for sample FTBLS-SS003. As a result of the low recoveries, the following non-detected results were qualified as estimated (UJ):

- Antimony in samples FTBLS-SS001, FTBLS-SS002, FTBLS-SS003, and FTBLS-SS004

The post digestion spike recoveries for samples FTBLS-IS014 and FTBLS-IS007 were within the QC limits of 75-125% or the unspiked sample amount was greater than four times the spike value. The laboratory flagged the post spike recovery for barium for sample FTBLS-IS014 as not meeting QC limits. However, the parent sample concentration was greater than four times the spike value and no qualification was required.

### Duplicate Sample Analysis

Matrix spike duplicate and laboratory control sample duplicate analyses rather than a sample duplicate were analyzed. The MS/MSD and LCS/LCSD relative percent differences (RPDs) were less than 20%.

### Field Duplicates

Two field duplicate pairs (samples FTBLS-SS003 / FTBLS-SS004 and samples FTBLS-IS001 / FTBLS-IS012) were collected with these samples to assess for both analytical and sampling precision. All field duplicate results were acceptable.

The following is a summary of the field duplicate results:

Analyte	Sample Results (mg/Kg) FTBLS-SS003	Field Duplicate Results (mg/Kg) FTBLS-SS004	RPD
Barium	76	68	11%
Copper	6.4	5.5	15%
Lead	6.7	6.0	11%
Magnesium	2900	2600	11%
Potassium	2000	1700	16%
Zinc	29	27	7%

Analyte	Sample Results (mg/Kg) FTBLS-SS001	Field Duplicate Results (mg/Kg) FTBLS-SS012	RPD
Barium	40	43	7%
Copper	5.2	5.2	0%
Lead	7.1	7.1	0%
Magnesium	1600	1500	6%
Potassium	1600	1600	0%
Zinc	19	19	0%

### Laboratory Control Samples

The laboratory analyzed a laboratory control sample for the metals. A laboratory control sample duplicate was also prepared and analyzed with the MIS samples in order to evaluate for method precision. All recoveries were within the laboratory QC limits of 80-120%. No calculation errors or transcription errors were found.

### Serial Dilution Analysis

The laboratory performed the serial dilution analysis on samples FTBLS-SS003, FTBLS-IS014, and FTBLS-IS007 for the ICP metals. The serial dilution percent differences (%Ds) were less than 10% or the original sample results were less than 50 times the method detection limit (MDLs) with the exception noted below. No calculation errors or transcription errors were found.

The serial dilution %D for zinc at 11% exceeded 10% and the original sample result was greater than 50 times the MDL for sample FTBLS-SS003. As a result of the elevated %D, the following associated results were qualified as estimated (J):

- Zinc in samples FTBLS-SS001, FTBLS-SS002, FTBLS-SS003, and FTBLS-SS004

The serial dilution %Ds for barium, magnesium, potassium, and zinc exceeded 10% and the original sample results were greater than 50 times the MDLs for samples FTBLS-IS014 and FTBLS-IS007. As a result of the elevated %Ds, the following associated results were qualified as estimated (J):

- Barium, magnesium, potassium, and zinc in samples FTBLS-IS001, FTBLS-IS002, FTBLS-IS003, FTBLS-IS004, FTBLS-IS005, FTBLS-IS006, FTBLS-IS007, FTBLS-IS008, FTBLS-IS009, FTBLS-IS010, FTBLS-IS011, FTBLS-IS012, FTBLS-IS013, FTBLS-IS014, FTBLS-IS015, and FTBLS-IS016

#### Analyte Quantitation and Reporting Limits (Full Validation Only)

Analyte quantitation and reporting limits were evaluated for FTBLS-SS004 and FTBLS-IS010. The sample concentrations were verified from the raw data for these samples. The results and reporting limits were correctly calculated and reported and adjusted for sample size and percent moisture. [Note: The MIS samples were air dried prior to preparation and analysis and did not require dry weight corrections.] All results were within the linear ranges and no dilutions or reanalyses were required.

#### Overall Assessment

Based on the previous assessment of the analytical results, the data were acceptable as qualified. Four non-detected results for antimony were qualified as estimated due to low MS/MSD recoveries and 68 results were qualified as estimated due to exceeded serial dilution %Ds which results in an analytical completeness of 49%. No data were rejected resulting in 100% usability for the metals results.

The data were considered representative as all samples were received in good condition and were analyzed within the specified holding times. The data is considered comparable as the samples were analyzed according to SW-846 Method 6010C requirements and standard analytical protocols. Accuracy was evaluated based on the calibration, matrix spikes, post digestion spikes, and LCS data. Precision was demonstrated by the MS/MSD and LCS/LCSD RPDs, field duplicates, and serial dilutions analyses.

## DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

- U - The analyte was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J - The positive or detected result is an estimated quantity. The associated numerical value is the appropriate concentration of the analyte in the sample.
- J + - The result is an estimated quantity, but the result may be biased high.
- J - - The result is an estimated quantity, but the result may be biased low.
- U J - The analyte was analyzed for, but was not detected above the level of the associated value. (The associated value is either the sample quantitation limit or the sample detection limit.) The reported value is approximate and maybe inaccurate or imprecise.
- N - The analysis indicates that there is presumptive evidence to make a tentatively identification of an analyte.
- N J - The analysis indicates that there is presumptive evidence to make a tentatively identification of an analyte and the associated numerical value represents an approximate concentration.
- R - The data is unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meeting Quality Control criteria. The analyte may or may not be present in the sample.
- NR - Result was not used from a particular sample analysis. This typically occurs when more than one result for an element is reported due to dilutions and reanalyses.

---

## Appendix C

---

**APPENDIX C**  
**PHOTOGRAPHIC LOG**

**FINAL SITE INSPECTION REPORT**  
**FORT BLISS**  
**EL PASO, TEXAS**



Photograph No. 1

Date: 10/4/2010

Time: 11:38

Site: Former Maneuver Area – Area 9

Description: Facing east – vegetation along hillside



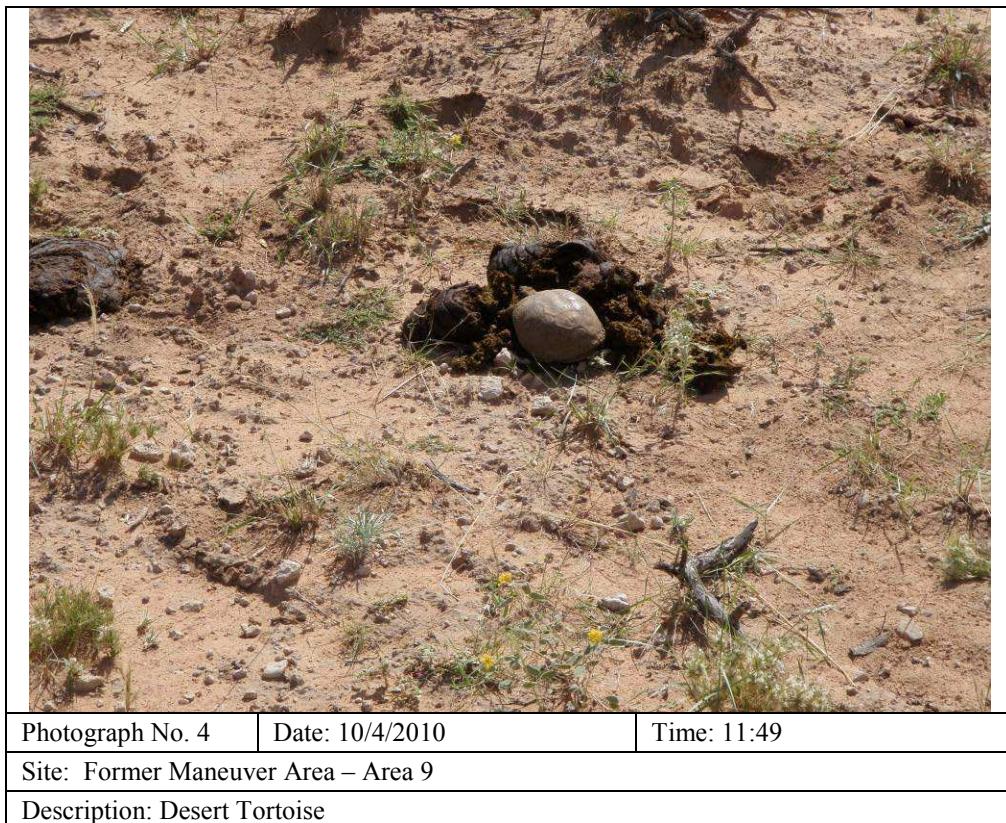
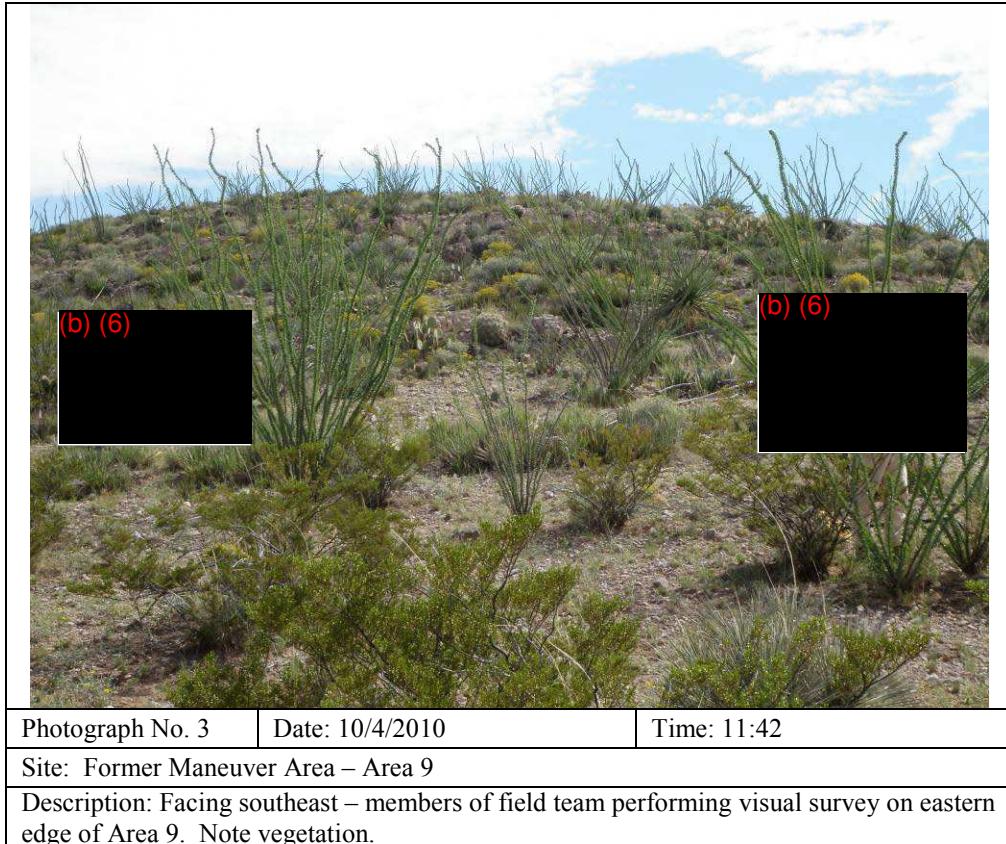
Photograph No. 2

Date: 10/4/2010

Time: 11:38

Site: Former Maneuver Area – Area 9

Description: Facing northwest – general site conditions and vegetation

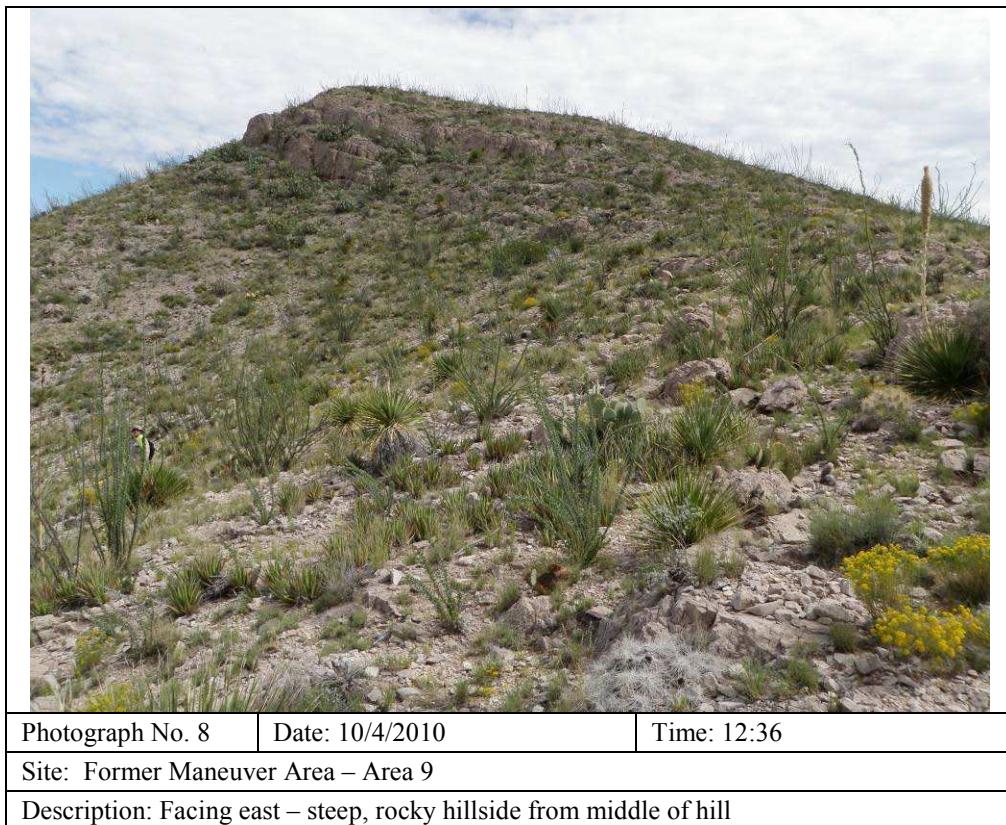
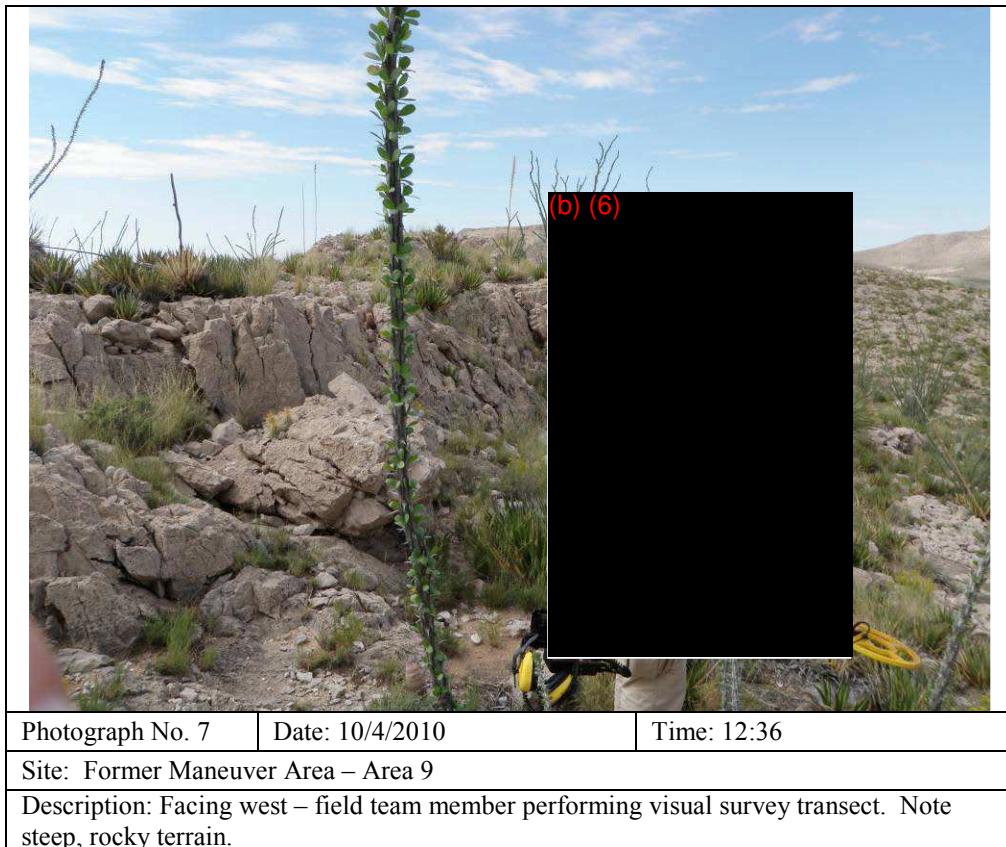




Photograph No. 5	Date: 10/4/2010	Time: 12:01
Site: Former Maneuver Area – Area 9		
Description: '03 Springfield Stripper Clip		



Photograph No. 6	Date: 10/4/2010	Time: 12:01
Site: Former Maneuver Area – Area 9		
Description: '03 Springfield Stripper Clip		





Photograph No. 9

Date: 10/4/2010

Time: 12:39

Site: Former Maneuver Area – Area 9

Description: Facing south – field team traversing hill



Photograph No. 10

Date: 10/4/2010

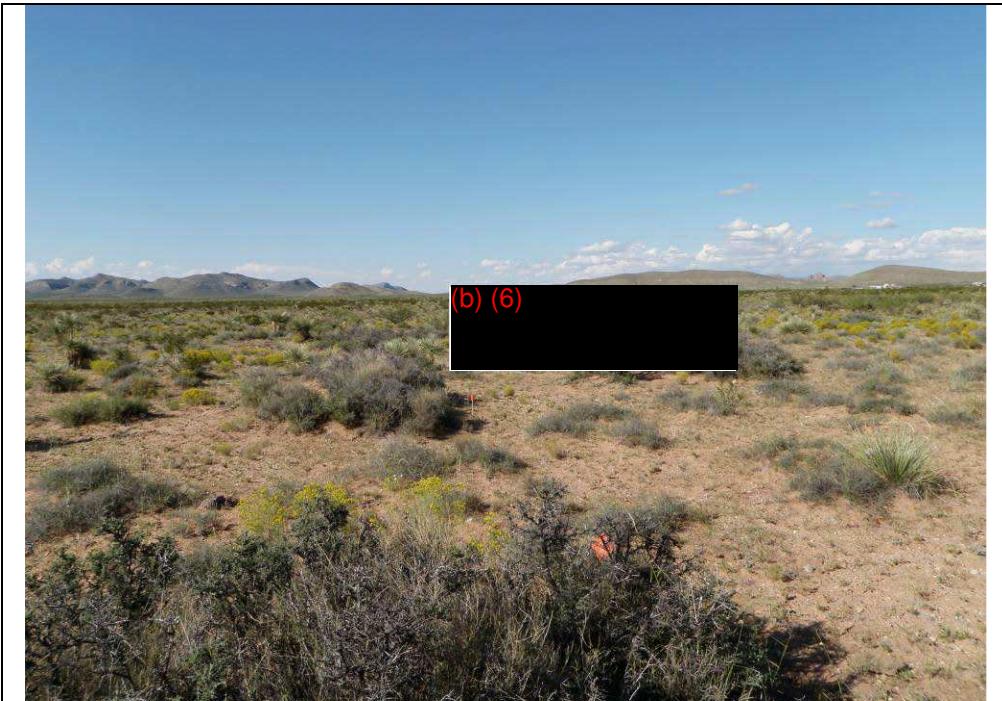
Time: 14:27

Site: Former Maneuver Area – Area 9

Description: Cattle in Area 9



Photograph No. 11	Date: 10/4/2010	Time: 14:28
Site: Former Maneuver Area – Area 9		
Description: Facing west – southern portion of Area 9		



Photograph No. 12	Date: 10/4/2010	Time: 16:06
Site: Former Maneuver Area – Area 9		
Description: Facing north – incremental sampling unit for sample FTBLS-IS001 from the SW corner		



Photograph No. 13	Date: 10/4/2010	Time: 16:09
Site: Former Maneuver Area – Area 9		
Description: Facing north – incremental sampling unit from middle of west end		



Photograph No. 14	Date: 10/4/2010	Time: 17:02
Site: Former Maneuver Area – Area 10		
Description: Watering hole in eastern portion of Area 10		



Photograph No. 15

Date: 10/4/2010

Time: 17:25

Site: Former Maneuver Area – Area 10

Description: M104 illuminating flare canister lid



Photograph No. 16

Date: 10/4/2010

Time: 17:25

Site: Former Maneuver Area – Area 10

Description: M104 illuminating flare canister lid



Photograph No. 17	Date: 10/4/2010	Time: 17:25
Site: Former Maneuver Area – Area 10		
Description: M104 illuminating flare canister lid		



Photograph No. 18	Date: 10/4/2010	Time: 17:26
Site: Former Maneuver Area – Area 10		
Description: .30-caliber blank shell casing		



Photograph No. 19

Date: 10/4/2010

Time: 17:26

Site: Former Maneuver Area – Area 10

Description: .30-caliber blank shell casing



Photograph No. 20

Date: 10/4/2010

Time: 17:45

Site: Former Maneuver Area – Area 10

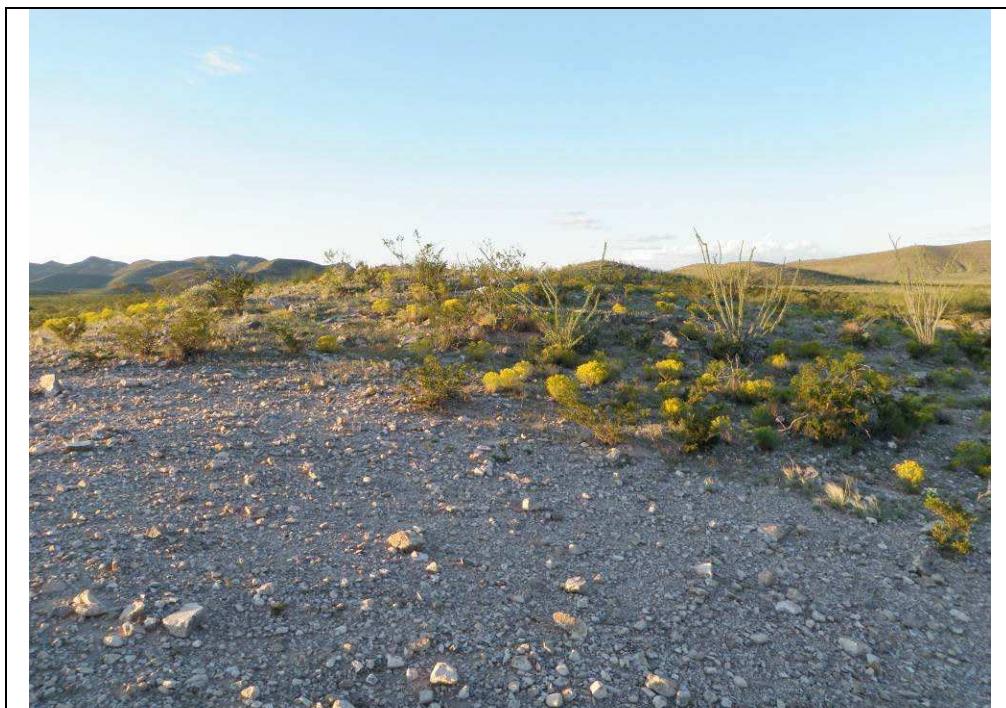
Description: Facing west – view of Area 10 from location where munitions debris was identified



Photograph No. 21	Date: 10/4/2010	Time: 17:52
Site: Former Maneuver Area – Area 10		
Description: M1 Garand Clip		



Photograph No. 22	Date: 10/4/2010	Time: 18:16
Site: Former Maneuver Area – Area 10		
Description: Facing west – flags marking southern boundary of incremental sampling unit for sample FTBLS-IS002		



Photograph No. 23	Date: 10/4/2010	Time: 18:17
Site: Former Maneuver Area – Area 10		
Description: Facing north – incremental sampling unit for sample FTBLS-IS002		



Photograph No. 24	Date: 10/5/2010	Time: 08:33
Site: Former Maneuver Area – Area 11		
Description: Facing southwest – general site conditions		



Photograph No. 25 Date: 10/5/2010 Time: 08:33

Site: Former Maneuver Area – Area 11

Description: Facing northeast – general site conditions



Photograph No. 26 Date: 10/5/2010 Time: 08:44

Site: Former Maneuver Area – Area 11

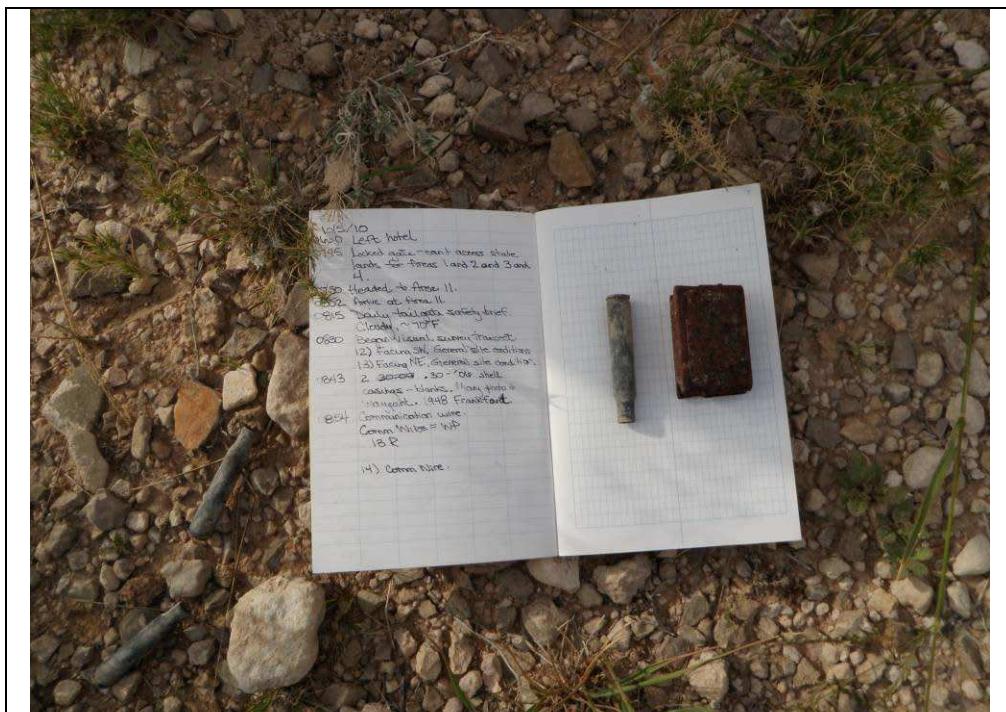
Description: FA 48 .30-06 blank shell casing



Photograph No. 27	Date: 10/5/2010	Time: 08:44
Site: Former Maneuver Area – Area 11		
Description: 1948 FA .30-06 blank shell casing		



Photograph No. 28	Date: 10/5/2010	Time: 08:54
Site: Former Maneuver Area – Area 11		
Description: Communication wire identified in Area 11		



Photograph No. 29

Date: 10/5/2010

Time: 09:02

Site: Former Maneuver Area – Area 11

Description: M1 Garand clip and .30-06 shell casings



Photograph No. 30

Date: 10/5/2010

Time: 09:02

Site: Former Maneuver Area – Area 11

Description: .30-caliber Browning machine gun link



Photograph No. 31	Date: 10/5/2010	Time: 09:03
Site: Former Maneuver Area – Area 11		
Description: .30-caliber Browning machine gun link		



Photograph No. 32	Date: 10/5/2010	Time: 09:03
Site: Former Maneuver Area – Area 11		
Description: M1 Garand clip and .30-06 shell casings		



Photograph No. 33

Date: 10/5/2010

Time: 09:45

Site: Former Maneuver Area – Area 11

Description: Facing south – incremental sampling unit for sample FTBLS-IS003 from center of unit



Photograph No. 34

Date: 10/5/2010

Time: 09:47

Site: Former Maneuver Area – Area 11

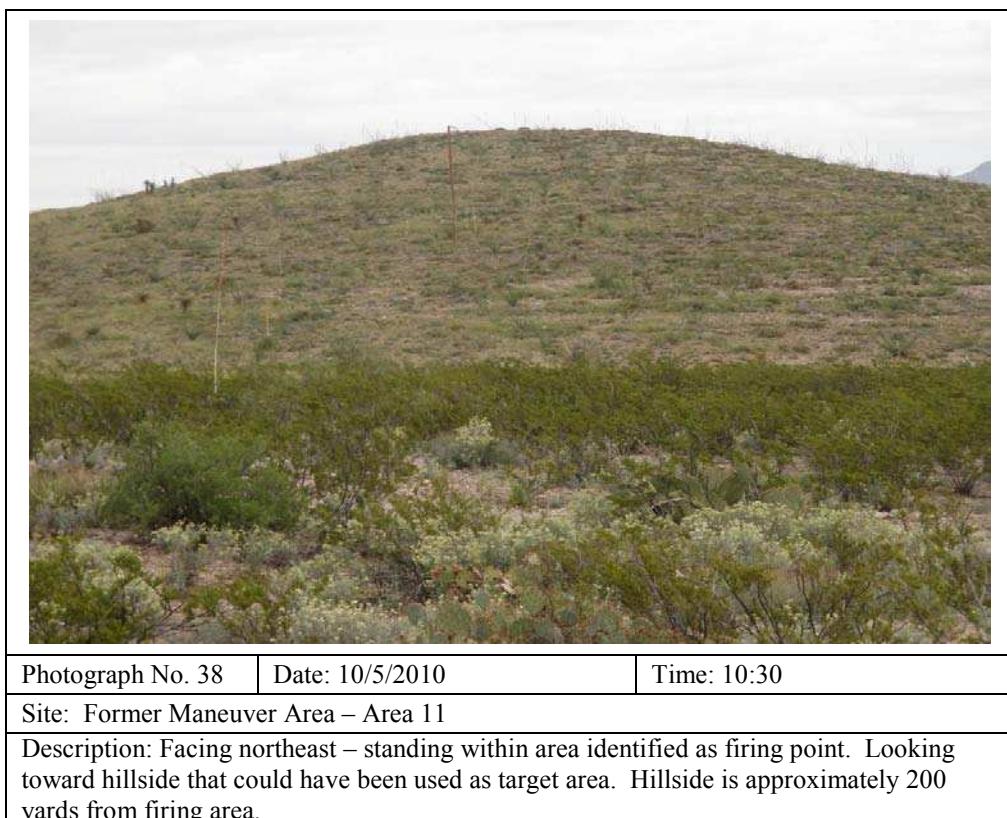
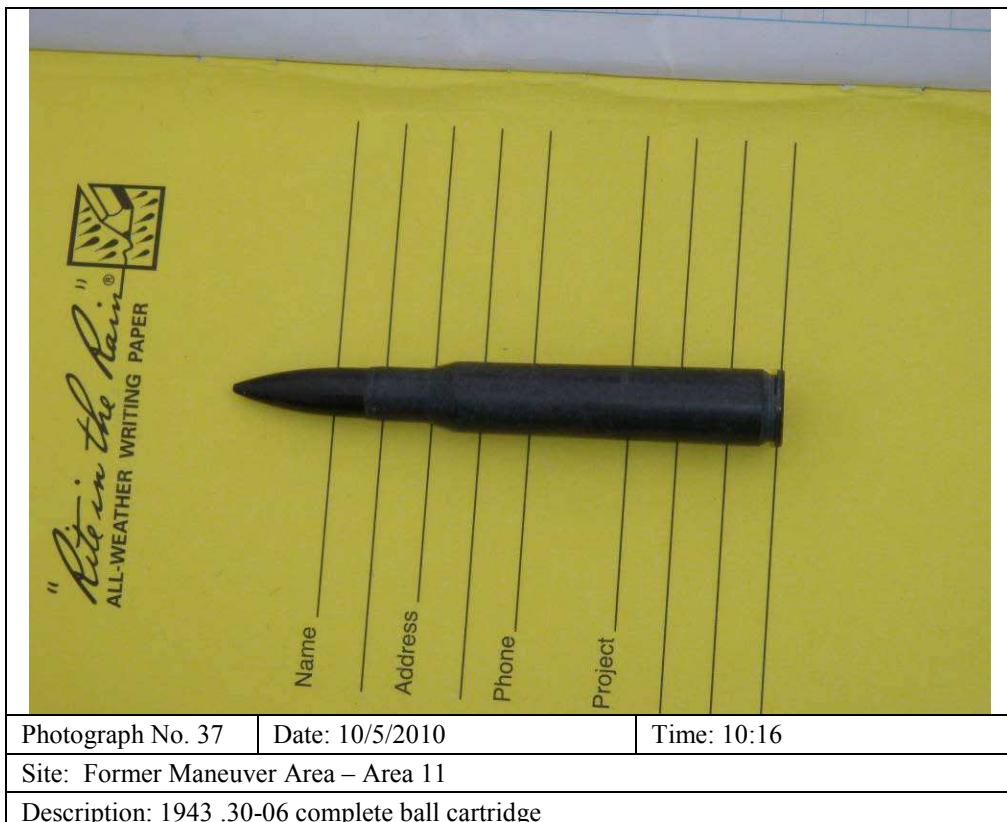
Description: Facing west – southern boundary of incremental sampling unit for sample FTBLS-IS003



Photograph No. 35	Date: 10/5/2010	Time: 10:13
Site: Former Maneuver Area – Area 11		
Description: Browning machine gun link pile (~500 links) and 3 belt starter tabs		



Photograph No. 36	Date: 10/5/2010	Time: 10:15
Site: Former Maneuver Area – Area 11		
Description: 1943 .30-06 complete ball cartridge		





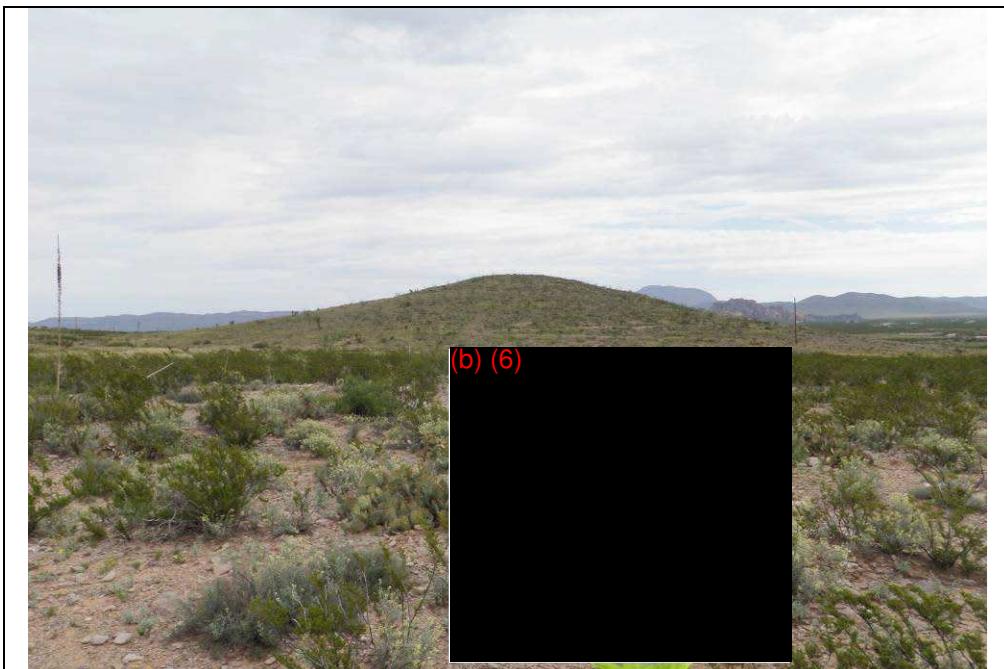
Photograph No. 39

Date: 10/5/2010

Time: 10:30

Site: Former Maneuver Area – Area 11

Description: Facing northeast – standing within area identified as firing point, looking toward hillside that could have used as target area. Hillside is approximately 300 yards from firing point.



Photograph No. 40

Date: 10/5/2010

Time: 10:30

Site: Former Maneuver Area – Area 11

Description: Facing east – sampling at firing point with possible target hillside in background



Photograph No. 41	Date: 10/5/2010	Time: 11:08
Site: Former Maneuver Area – Area 11		
Description: M60 link, 5.56mm blank, and 7.62mm blank		



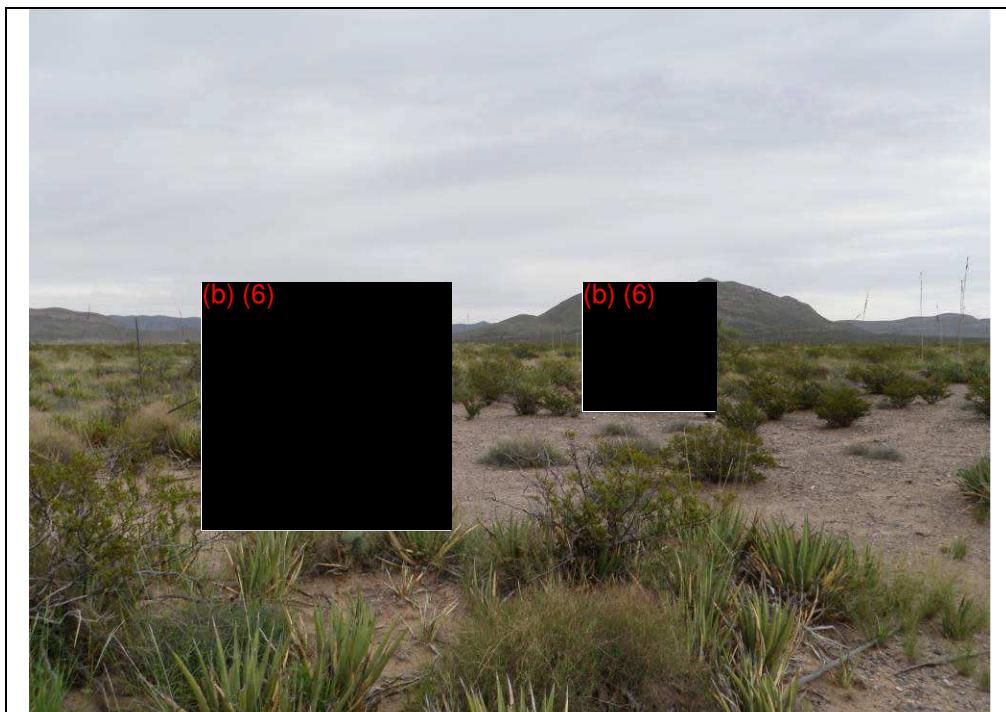
Photograph No. 42	Date: 10/5/2010	Time: 11:29
Site: Former Maneuver Area – Area 11		
Description: Facing southwest – streambed in central portion of site		



Photograph No. 43	Date: 10/5/2010	Time: 11:33
Site: Former Maneuver Area – Area 11		
Description: Vegetation in central portion of Area 11		



Photograph No. 44	Date: 10/5/2010	Time: 12:02
Site: Former Maneuver Area – Area 11		
Description: Locked gate off Stagecoach Road		



Photograph No. 45	Date: 10/5/2010	Time: 13:35
Site: Former Maneuver Area – Area 7		
Description: Facing northeast – field team performing visual surveys in Area 7		



Photograph No. 46	Date: 10/5/2010	Time: 13:45
Site: Former Maneuver Area – Area 7		
Description: Horned Lizard		



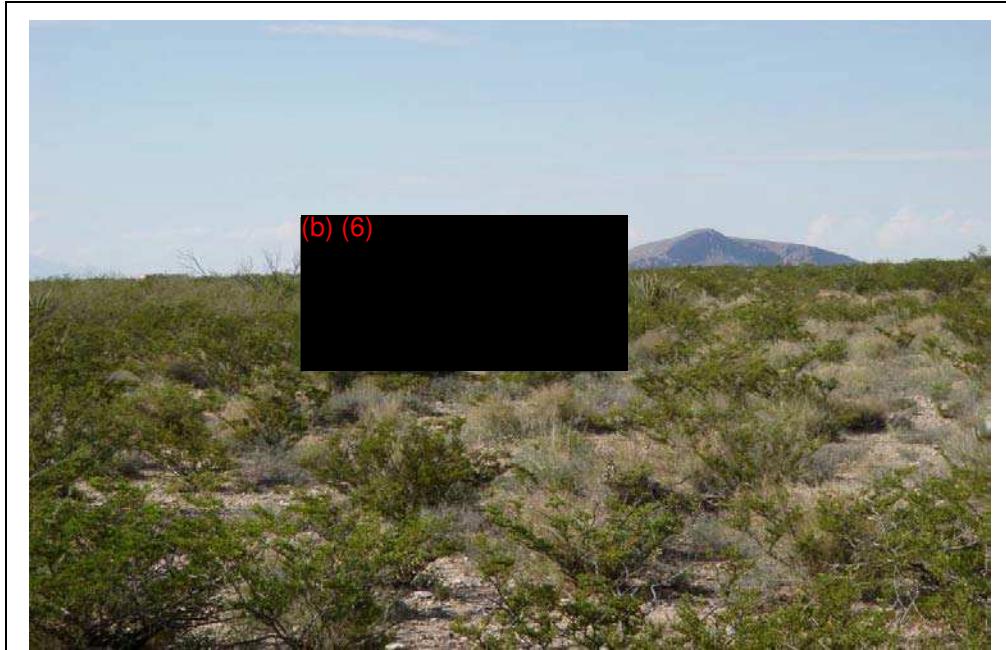
Photograph No. 47

Date: 10/5/2010

Time: 13:47

Site: Former Maneuver Area – Area 7

Description: Facing northeast – general site conditions with Hueco Tanks State Park in background



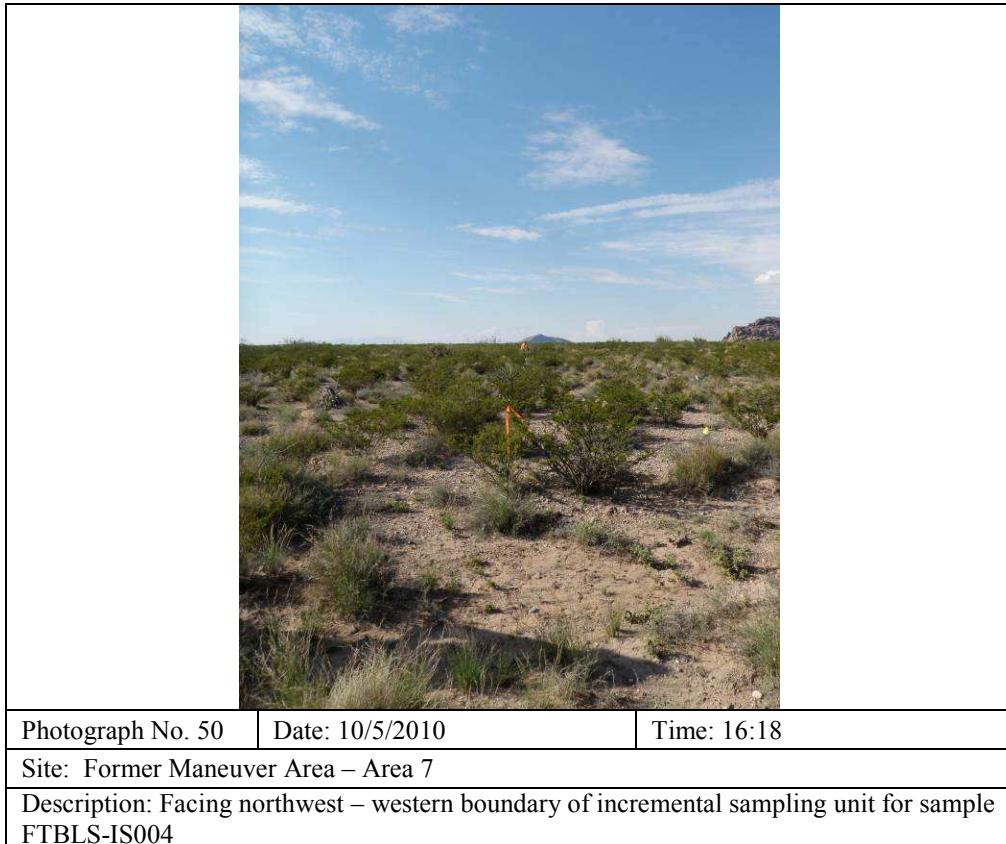
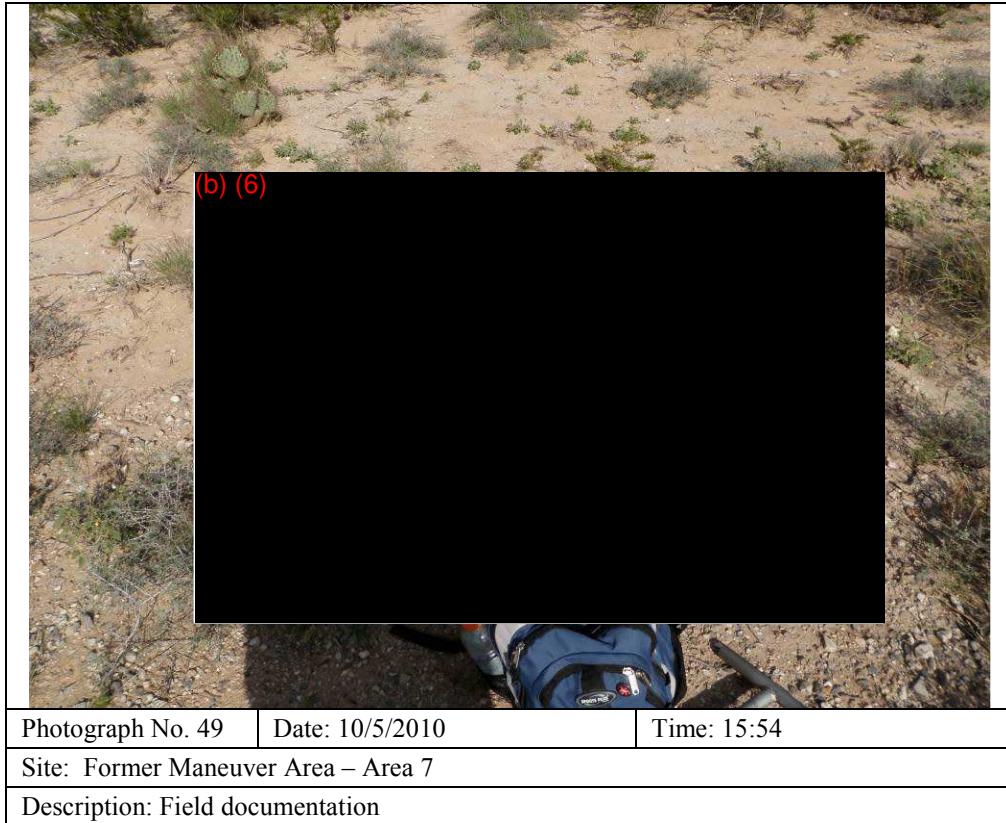
Photograph No. 48

Date: 10/5/2010

Time: 15:54

Site: Former Maneuver Area – Area 7

Description: Facing west – laying out incremental sampling grid for sample FTBLS-IS004





Photograph No. 51	Date: 10/5/2010	Time: 16:18
Site: Former Maneuver Area – Area 7		
Description: Facing northwest – incremental sampling unit for sample FTBLS-IS004		



Photograph No. 52	Date: 10/5/2010	Time: 17:25
Site: Former Maneuver Area – Area 5		
Description: Facing northeast – general site conditions		



Photograph No. 53	Date: 10/5/2010	Time: 17:28
Site: Former Maneuver Area – Area 5		
Description: Facing north – fence line along western boundary of Area 5		



Photograph No. 54	Date: 10/5/2010	Time: 17:28
Site: Former Maneuver Area – Area 5		
Description: SL 43 .30-06 shell casing		



Photograph No. 55

Date: 10/5/2010

Time: 17:31

Site: Former Maneuver Area – Area 5

Description: Fuze from an expended smoke grenade



Photograph No. 56

Date: 10/5/2010

Time: 17:37

Site: Former Maneuver Area – Area 5

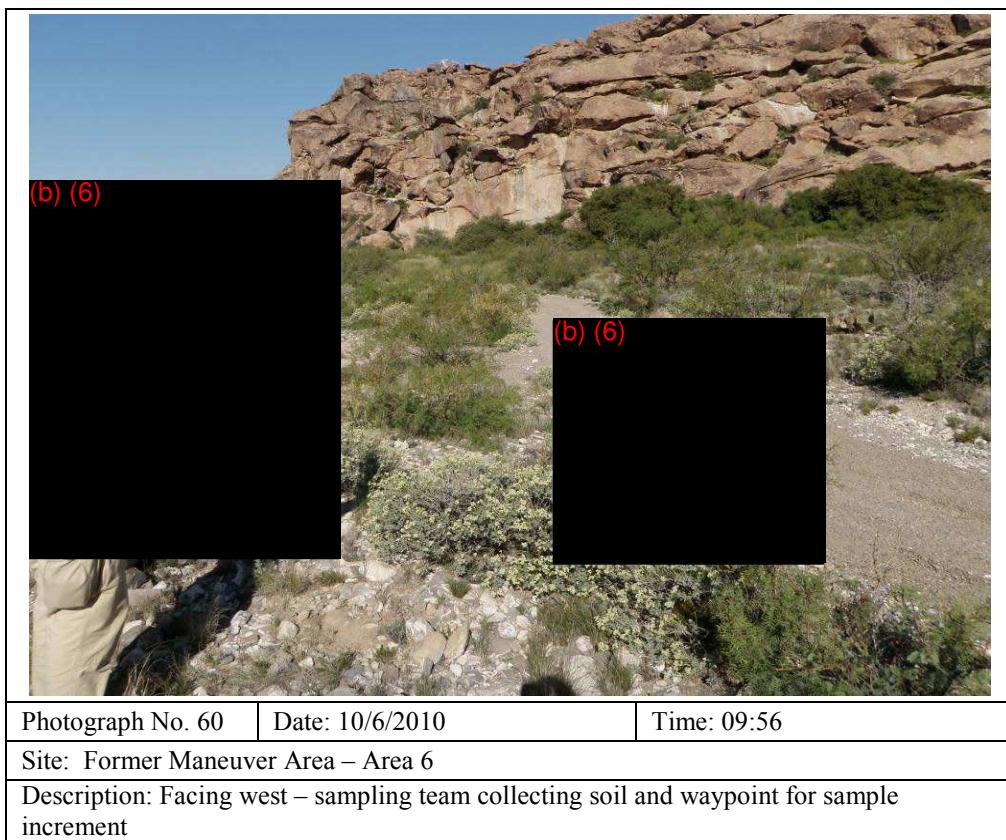
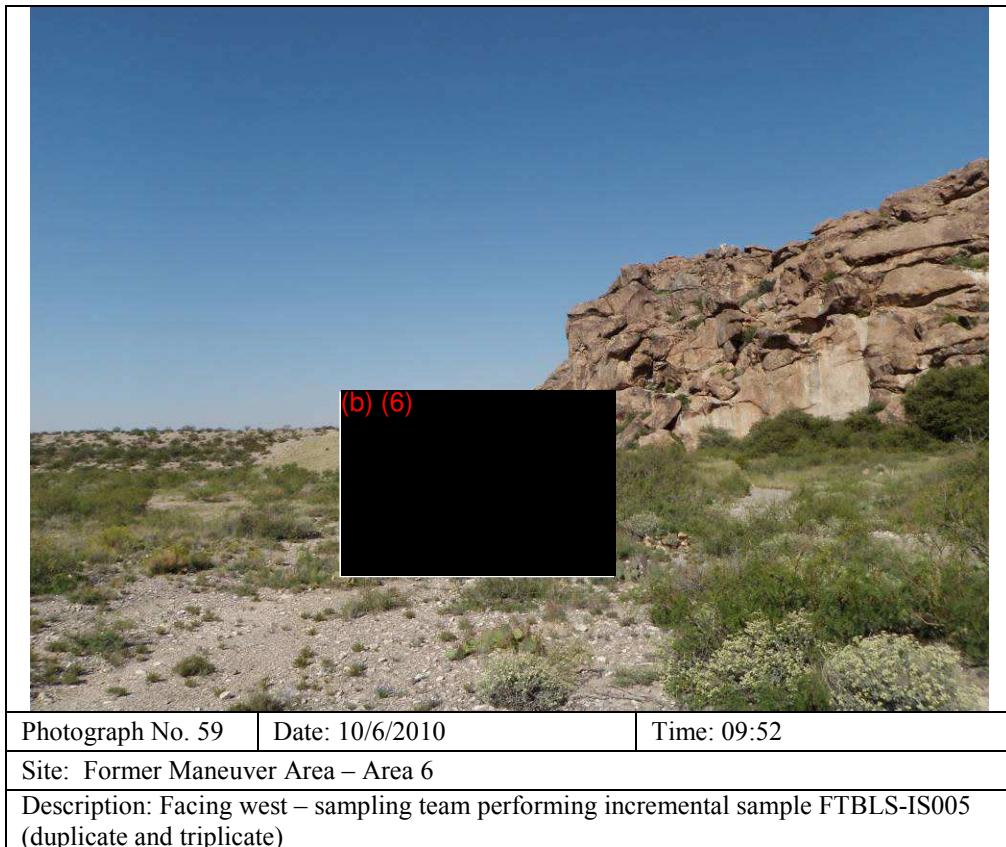
Description: FA 34 .30-06 shell casing

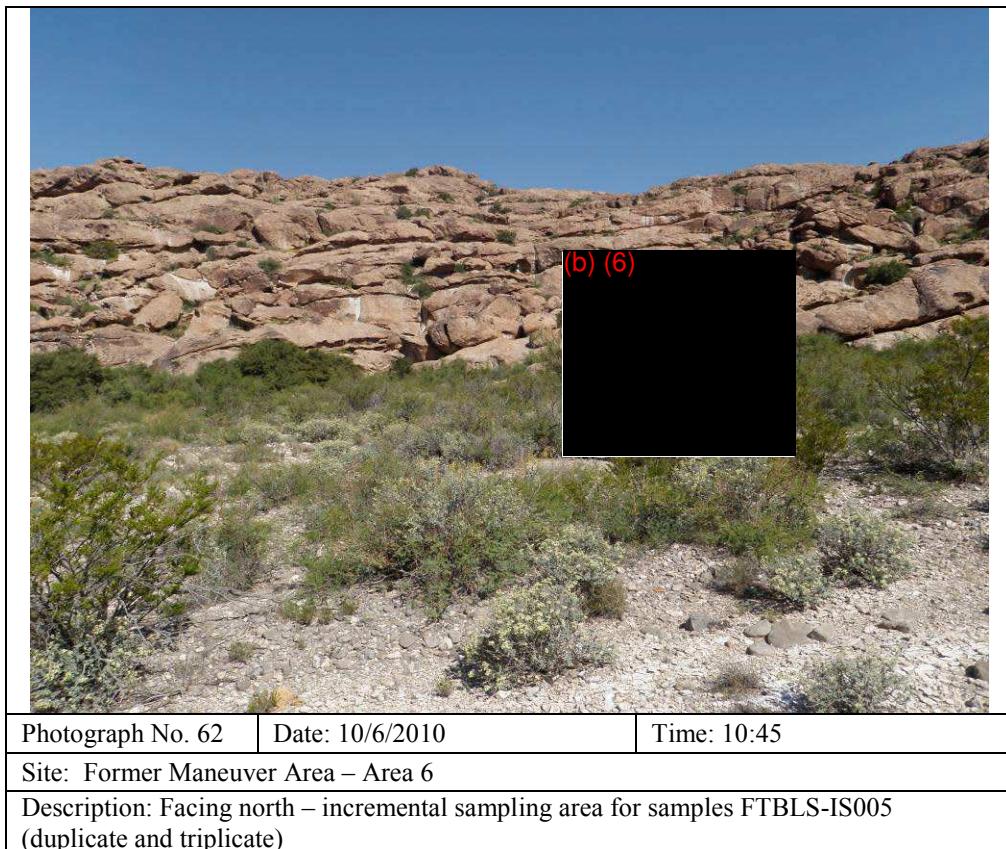
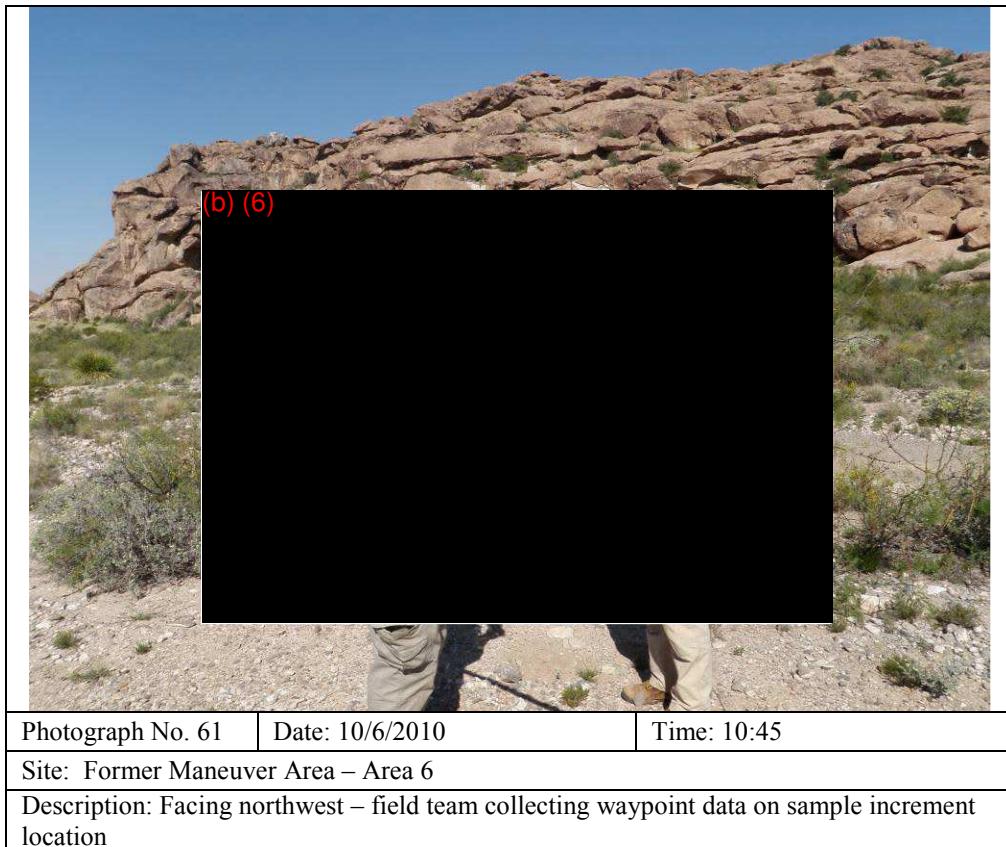


Photograph No. 57	Date: 10/5/2010	Time: 17:47
Site: Former Maneuver Area – Area 5		
Description: '03 Springfield Stripper Clips		



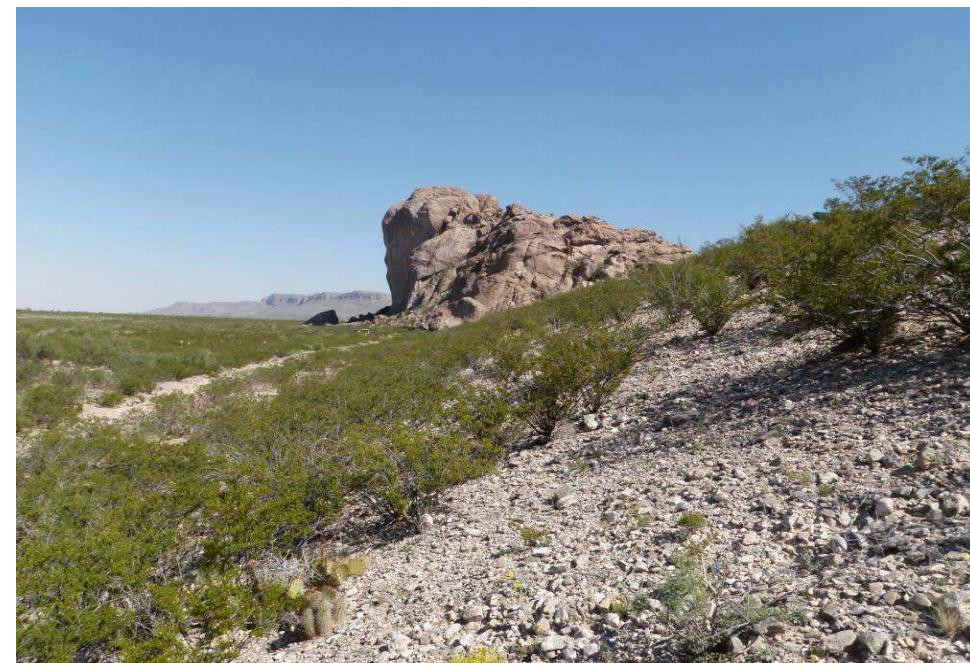
Photograph No. 58	Date: 10/6/2010	Time: 09:50
Site: Former Maneuver Area – Area 6		
Description: Facing west – sampling team performing incremental sample FTBLS-IS005		



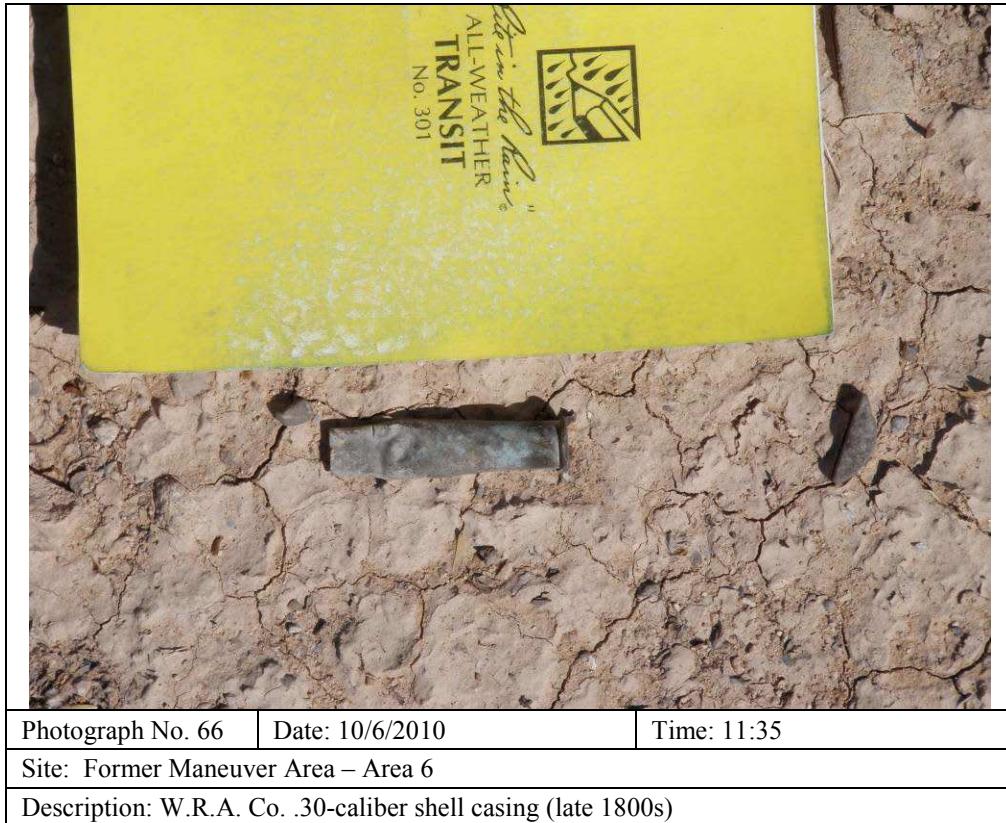
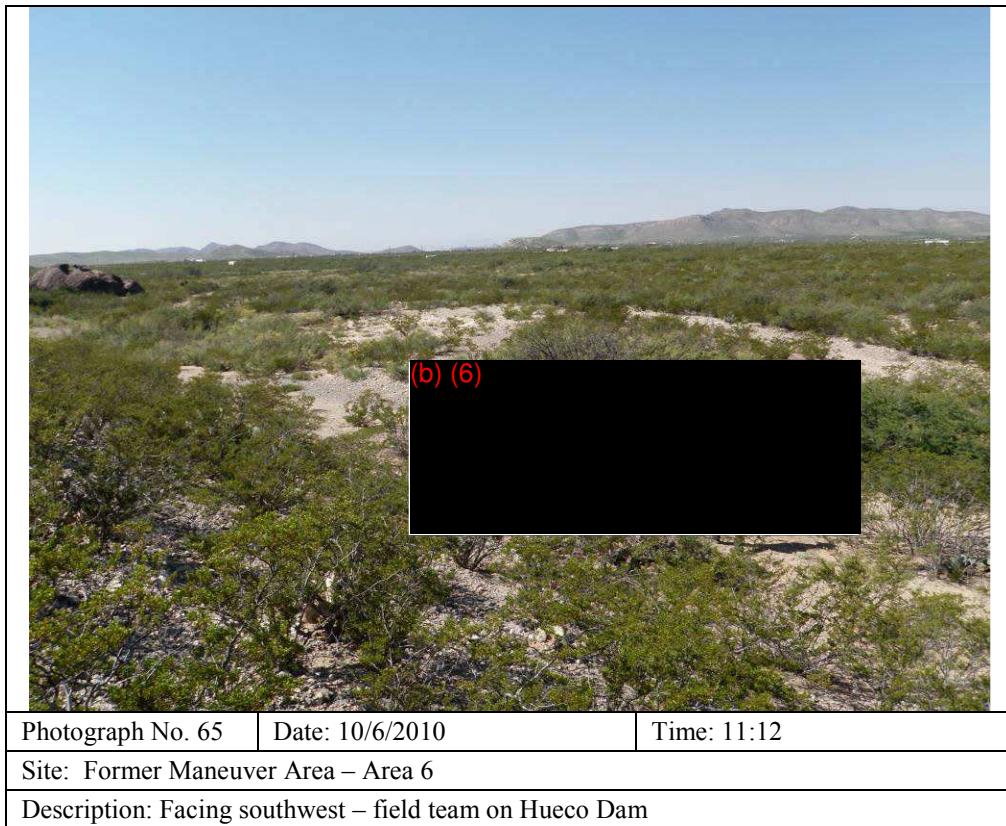




Photograph No. 63	Date: 10/6/2010	Time: 10:45
Site: Former Maneuver Area – Area 6		
Description: Facing northwest – incremental sampling area for samples FTBLS-IS005 (duplicate and triplicate)		



Photograph No. 64	Date: 10/6/2010	Time: 11:12
Site: Former Maneuver Area – Area 6		
Description: Facing north – Hueco Dam from the south		





Photograph No. 67

Date: 10/6/2010

Time: 11:47

Site: Former Maneuver Area – Area 6

Description: W.R.A. Co. .30-caliber shell casing (late 1800s)



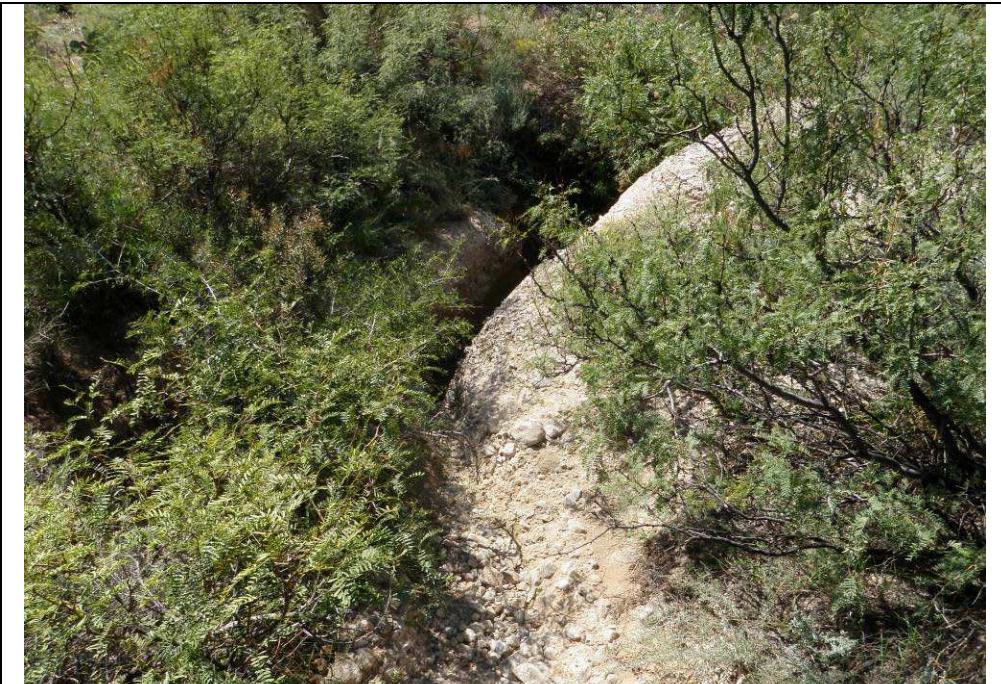
Photograph No. 68

Date: 10/6/2010

Time: 12:25

Site: Former Maneuver Area – Area 6

Description: Facing south – central area of Hueco Tanks State Park



Photograph No. 69	Date: 10/6/2010	Time: 12:35
Site: Former Maneuver Area – Area 6		
Description: Facing southwest – drainage in Hueco Tanks State Park		



Photograph No. 70	Date: 10/6/2010	Time: 12:35
Site: Former Maneuver Area – Area 6		
Description: Facing northeast – drainage in Hueco Tanks State Park		



Photograph No. 71	Date: 10/6/2010	Time: 12:36
Site: Former Maneuver Area – Area 6		
Description: Field team performing visual survey in central area of Hueco Tanks State Park		



Photograph No. 72	Date: 10/6/2010	Time: 12:37
Site: Former Maneuver Area – Area 6		
Description: Facing east – general site conditions		



Photograph No. 73

Date: 10/6/2010

Time: 13:54

Site: Former Maneuver Area – Area 15

Description: Facing west – general site conditions

(b) (6)



Photograph No. 74

Date: 10/6/2010

Time: 14:25

Site: Former Maneuver Area – Area 15

Description: Field team collecting incremental sample



Photograph No. 75

Date: 10/6/2010

Time: 14:28

Site: Former Maneuver Area – Area 15

Description: Facing south – eastern boundary of IS unit for sample FTBLS-IS008



Photograph No. 76

Date: 10/6/2010

Time: 14:28

Site: Former Maneuver Area – Area 15

Description: Facing southwest – incremental sampling unit for sample FTBLS-IS008



Photograph No. 77

Date: 10/6/2010

Time: 15:41

Site: Former Maneuver Area – Area 5

Description: Facing northwest – general site conditions in eastern portion of Area 5



(b) (6)

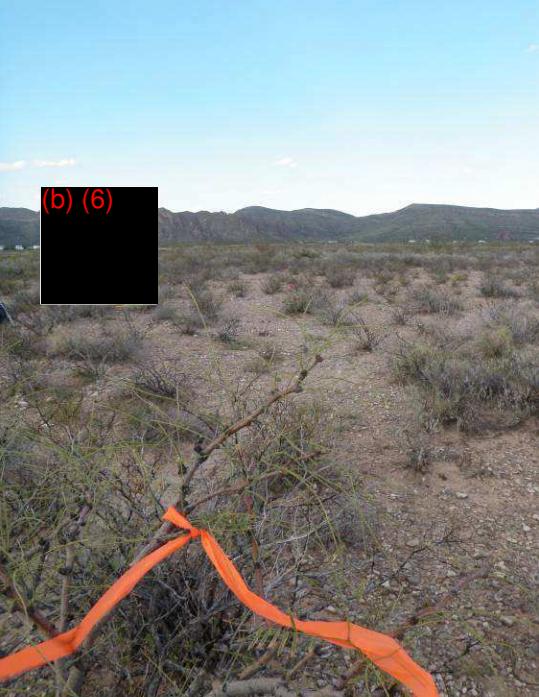
Photograph No. 78

Date: 10/6/2010

Time: 16:01

Site: Former Maneuver Area – Area 5

Description: Facing southeast – field team performing visual survey transects



Photograph No. 79	Date: 10/6/2010	Time: 16:52
Site: Former Maneuver Area – Area 5		
Description: Facing northeast – eastern boundary of incremental sampling unit for sample FTBLS-IS009 (duplicate and triplicate)		



Photograph No. 80	Date: 10/6/2010	Time: 17:03
Site: Former Maneuver Area – Area 5		
Description: FA 45 .30-06 star crimped blank shell casing		



Photograph No. 81	Date: 10/7/2010	Time: 08:29
Site: Former Maneuver Area – Area 2		
Description: Facing northeast – vegetation and site conditions for Area 2		



Photograph No. 82	Date: 10/7/2010	Time: 08:34
Site: Former Maneuver Area – Area 2		
Description: Facing west – vegetation in Area 2 - very dense cacti and yucca		



Photograph No. 83	Date: 10/7/2010	Time: 09:07
Site: Former Maneuver Area – Area 2		
Description: Facing northwest – water Tank in western portion of Area 2		



Photograph No. 84	Date: 10/7/2010	Time: 09:11
Site: Former Maneuver Area – Area 2		
Description: Tarantula		



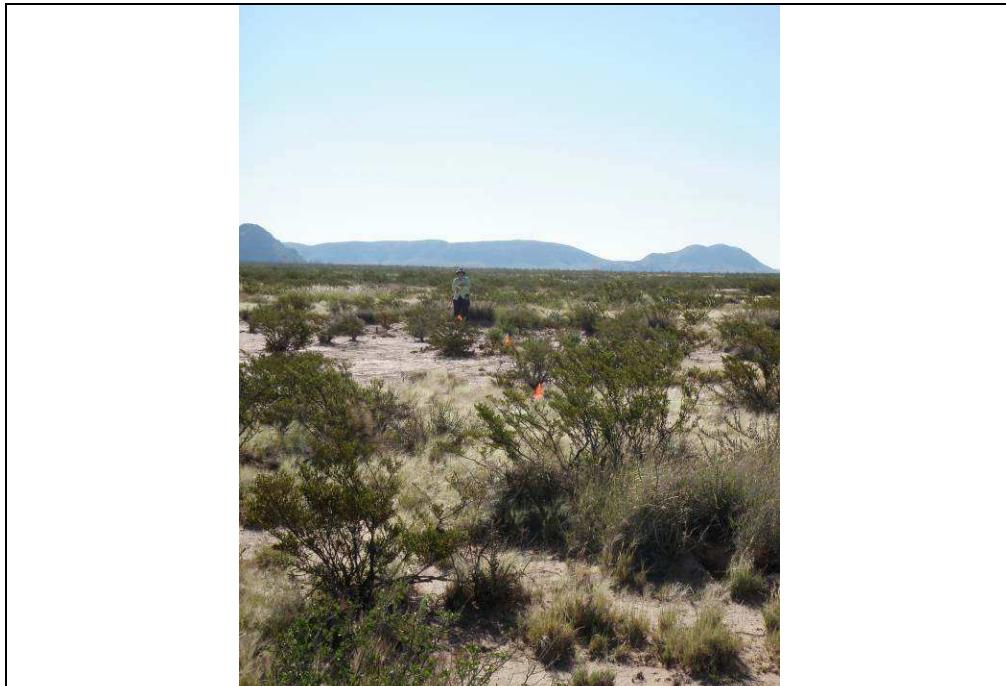
Photograph No. 85

Date: 10/7/2010

Time: 09:38

Site: Former Maneuver Area – Area 2

Description: UXO techs laying out incremental sampling grid for sample FTBLS-IS013



Photograph No. 86

Date: 10/7/2010

Time: 10:03

Site: Former Maneuver Area – Area 2

Description: Facing north – eastern boundary of incremental sampling unit for sample FTBLS-IS013



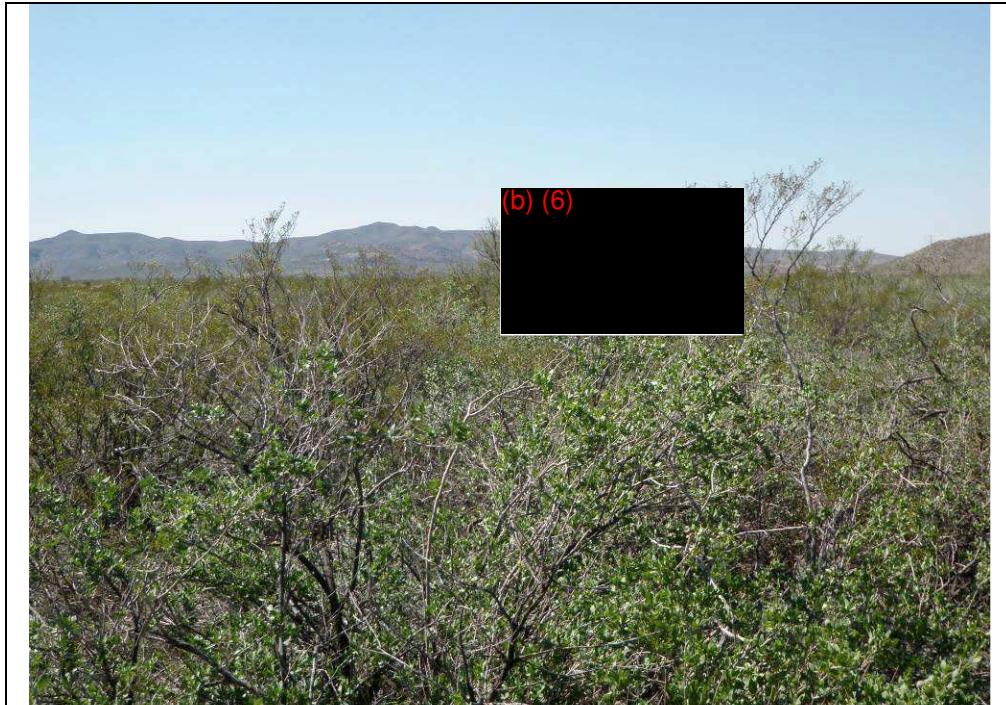
Photograph No. 87	Date: 10/7/2010	Time: 10:03
Site: Former Maneuver Area – Area 2		
Description: Facing northwest – incremental sampling unit for Area 2		



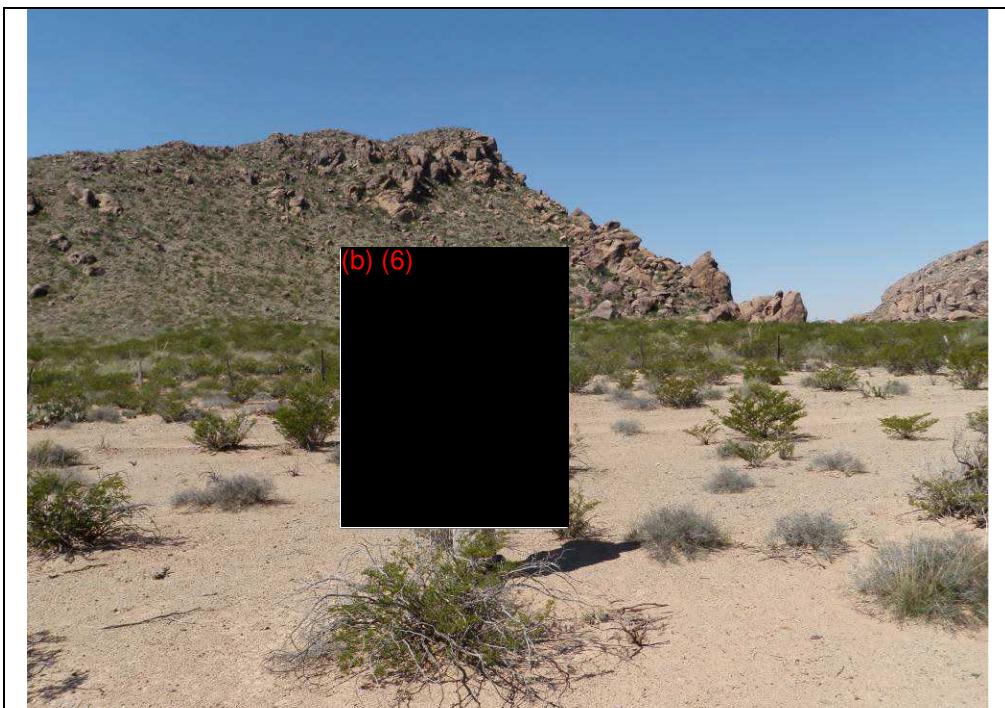
Photograph No. 88	Date: 10/7/2010	Time: 11:30
Site: Former Maneuver Area – Area 4		
Description: Facing south – rock outcroppings at southern boundary of Area 4		



Photograph No. 89	Date: 10/7/2010	Time: 11:30
Site: Former Maneuver Area – Area 4		
Description: Facing south – rock outcroppings at southern boundary of Area 4		



Photograph No. 90	Date: 10/7/2010	Time: 11:54
Site: Former Maneuver Area – Area 4		
Description: Facing west – tall, dense vegetation within Area 4		



Photograph No. 91	Date: 10/7/2010	Time: 12:00
Site: Former Maneuver Area – Area 4		
Description: Facing west – field team member at western boundary of Area 4		



Photograph No. 92	Date: 10/7/2010	Time: 12:19
Site: Former Maneuver Area – Area 4		
Description: High Explosives detonation fragment		



Photograph No. 93

Date: 10/7/2010

Time: 12:20

Site: Former Maneuver Area – Area 4

Description: High Explosives detonation fragment



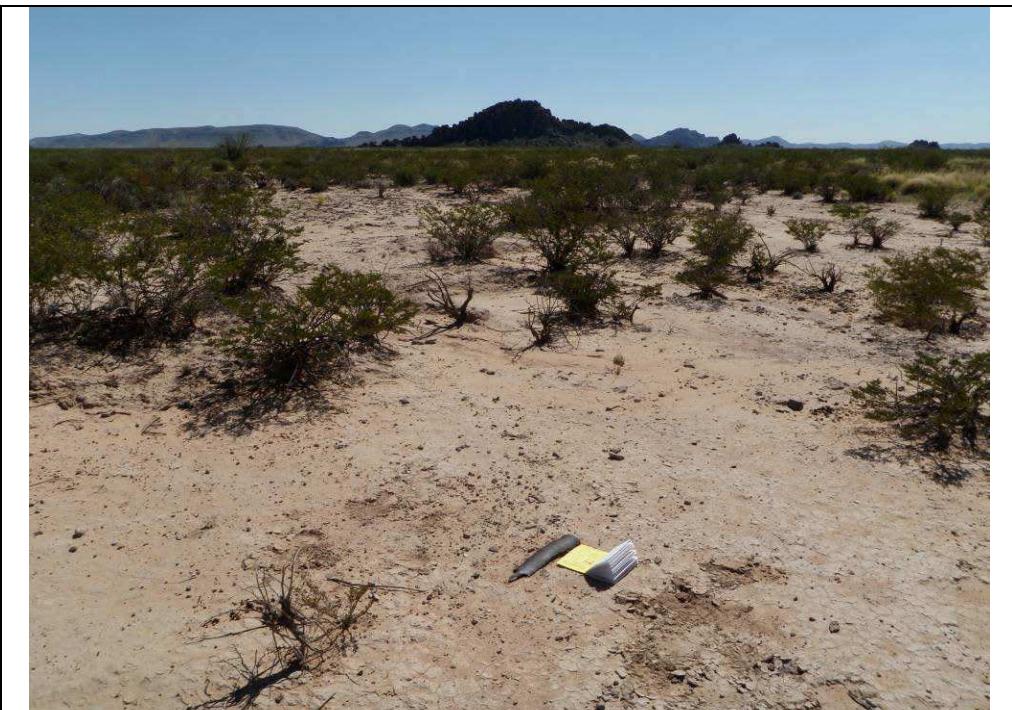
Photograph No. 94

Date: 10/7/2010

Time: 12:20

Site: Former Maneuver Area – Area 4

Description: Fragment from 4.2-inch mortar shell



Photograph No. 95

Date: 10/7/2010

Time: 12:20

Site: Former Maneuver Area – Area 4

Description: Facing southeast – location of fragment from 4.2-inch mortar shell within Area 4



Photograph No. 96

Date: 10/7/2010

Time: 12:27

Site: Former Maneuver Area – Area 4

Description: Obturator/rotating band from 4.2-inch mortar shell



Photograph No. 97

Date: 10/7/2010

Time: 12:30

Site: Former Maneuver Area – Area 4

Description: Rotating band and fragments from 4.2-inch mortar shell(s)



Photograph No. 98

Date: 10/7/2010

Time: 12:30

Site: Former Maneuver Area – Area 4

Description: Several fragments from multiple 4.2-inch mortar shells



Photograph No. 99

Date: 10/7/2010

Time: 12:30

Site: Former Maneuver Area – Area 4

Description: Facing east – view across site



Photograph No. 100

Date: 10/7/2010

Time: 12:30

Site: Former Maneuver Area – Area 4

Description: Facing east – view across site



Photograph No. 101

Date: 10/7/2010

Time: 12:40

Site: Former Maneuver Area – Area 4

Description: Composite soil sample FTBLS-SS002



Photograph No. 102

Date: 10/7/2010

Time: 12:41

Site: Former Maneuver Area – Area 4

Description: Facing southeast – soil sample FTBLS-SS002 location in relation to site



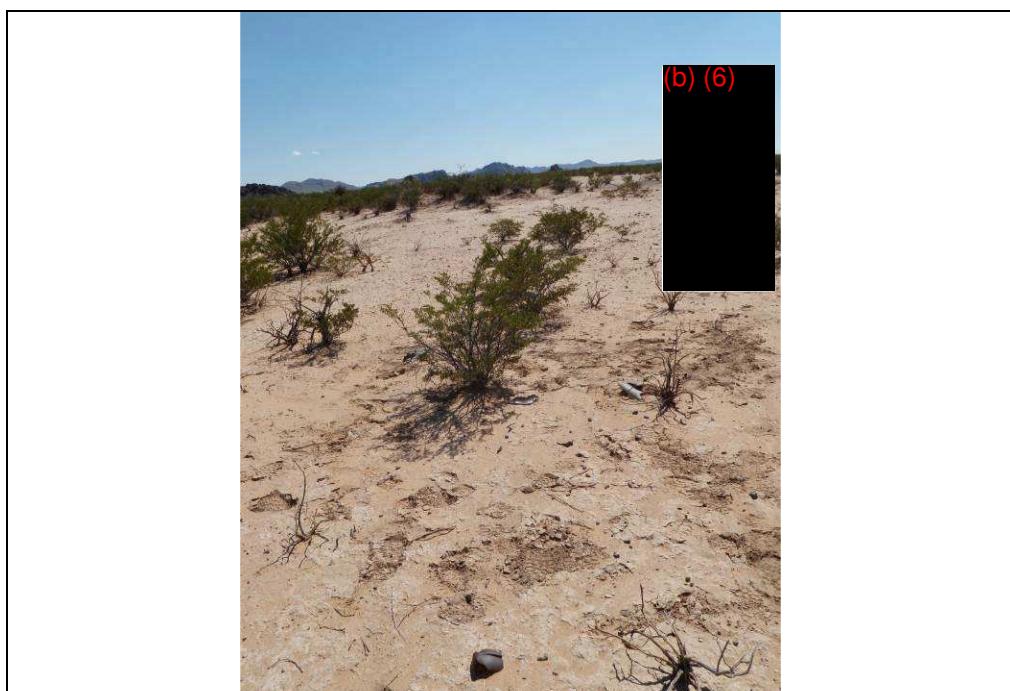
Photograph No. 103

Date: 10/7/2010

Time: 12:43

Site: Former Maneuver Area – Area 4

Description: Large fragment from 4.2-inch M2 mortar shell without rotating band



Photograph No. 104

Date: 10/7/2010

Time: 12:51

Site: Former Maneuver Area – Area 4

Description: Facing east – area of 4.2-inch mortar fragments



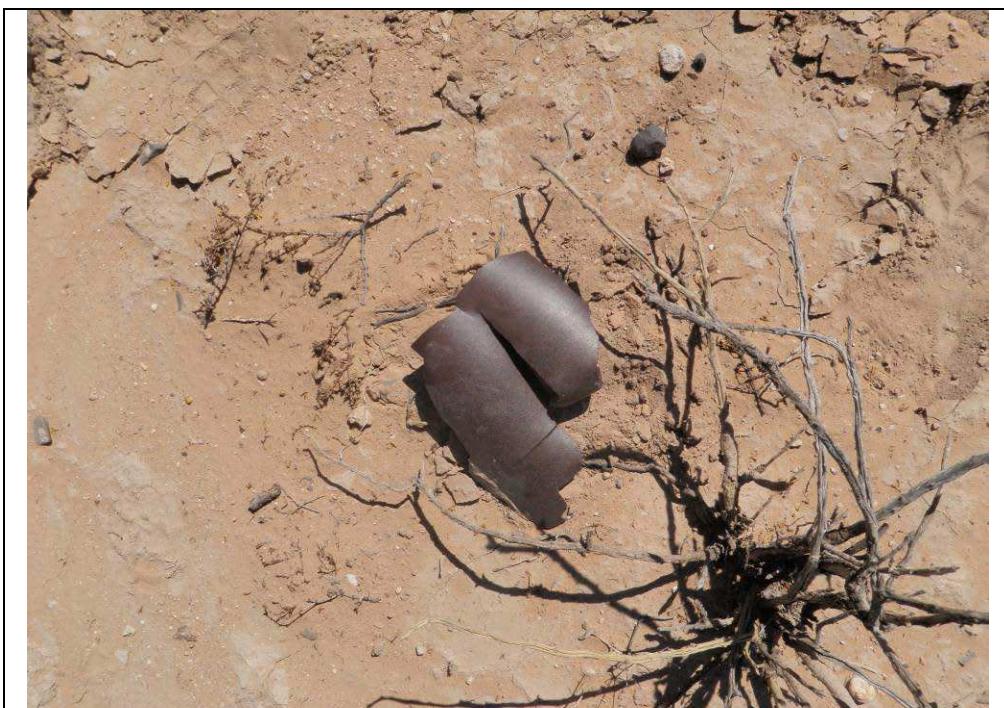
Photograph No. 105

Date: 10/7/2010

Time: 12:51

Site: Former Maneuver Area – Area 4

Description: Fragment from 4.2-inch M2 mortar shell



Photograph No. 106

Date: 10/7/2010

Time: 12:51

Site: Former Maneuver Area – Area 4

Description: Fragment from 4.2-inch M2 mortar shell



Photograph No. 107

Date: 10/7/2010

Time: 12:52

Site: Former Maneuver Area – Area 4

Description: Fuze from 4.2-inch mortar shell



Photograph No. 108

Date: 10/7/2010

Time: 12:52

Site: Former Maneuver Area – Area 4

Description: Fuze from 4.2-inch mortar shell



Photograph No. 109

Date: 10/7/2010

Time: 12:52

Site: Former Maneuver Area – Area 4

Description: Fuze from 4.2-inch mortar shell



Photograph No. 110

Date: 10/7/2010

Time: 12:58

Site: Former Maneuver Area – Area 4

Description: Composite soil sample FTBLS-SS003



Photograph No. 111	Date: 10/7/2010	Time: 13:03
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 4

Description: Fuze from 4.2-inch mortar shell



Photograph No. 112	Date: 10/7/2010	Time: 13:16
--------------------	-----------------	-------------

Site: Former Maneuver Area 4

Description: Undefined munitions fragment



Photograph No. 113	Date: 10/7/2010	Time: 13:44
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 4

Description: Facing east – rock outcropping at eastern edge of Area 4



Photograph No. 114	Date: 10/7/2010	Time: 16:05
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 13

Description: Facing north – abandoned building at north end of Area 13



Photograph No. 115

Date: 10/7/2010

Time: 16:29

Site: Former Maneuver Area – Area 13

Description: Facing north – general site conditions



Photograph No. 116

Date: 10/7/2010

Time: 17:04

Site: Former Maneuver Area – Area 13

Description: Facing east – view of Area 13 from top of mountain



Photograph No. 117	Date: 10/7/2010	Time: 17:04
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 13

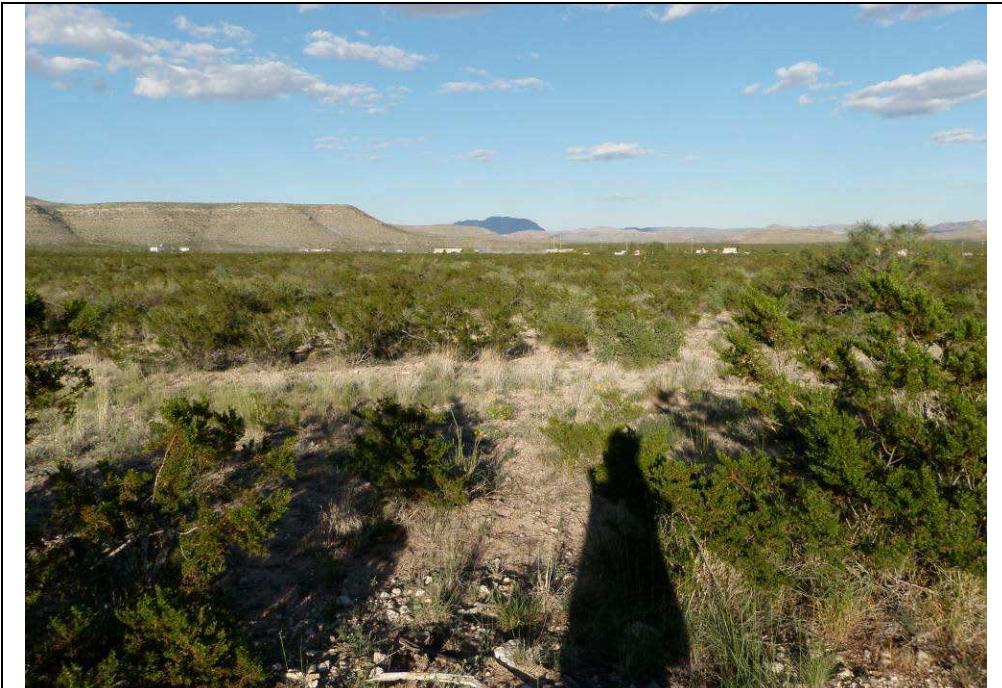
Description: Facing east – view of Area 13 from top of mountain



Photograph No. 118	Date: 10/7/2010	Time: 17:12
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 13

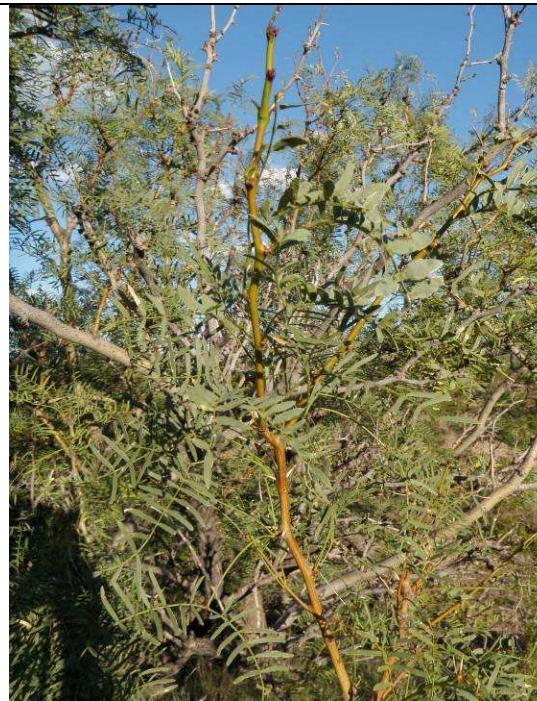
Description: Facing north – northern portion of Area 13



Photograph No. 119	Date: 10/7/2010	Time: 17:31
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 13

Description: Facing east – general site conditions



Photograph No. 120	Date: 10/7/2010	Time: 17:34
--------------------	-----------------	-------------

Site: Former Maneuver Area – Area 13

Description: Mesquite branches



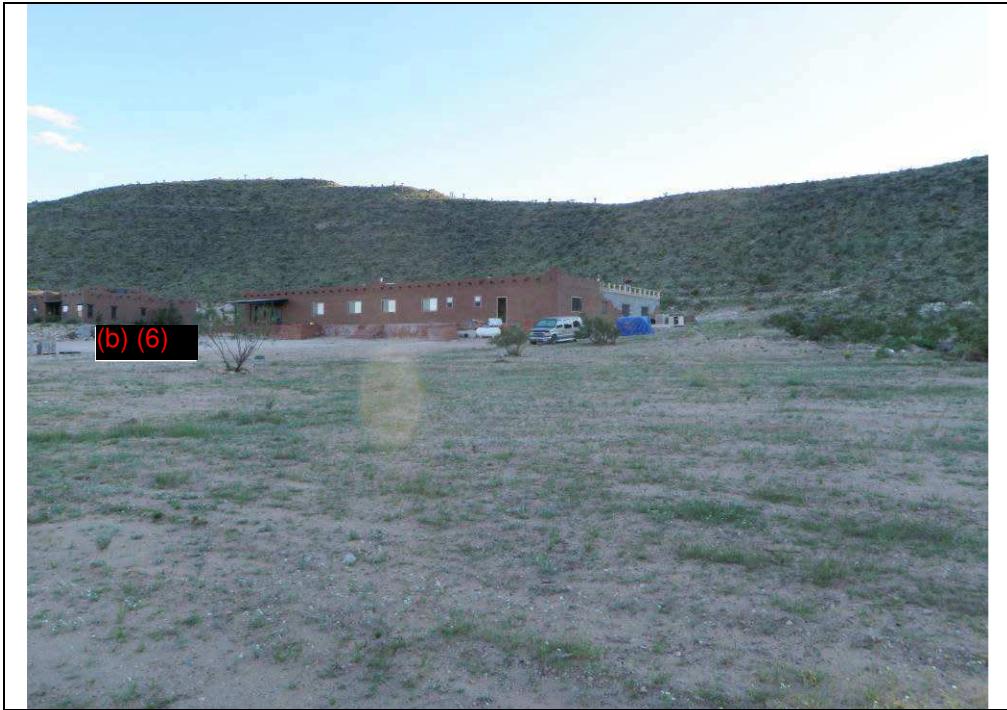
Photograph No. 121

Date: 10/7/2010

Time: 17:54

Site: Former Maneuver Area – Area 13

Description: Facing south – western boundary of incremental sampling unit for sample FTBLS-IS014 in proximity to residences



Photograph No. 122

Date: 10/7/2010

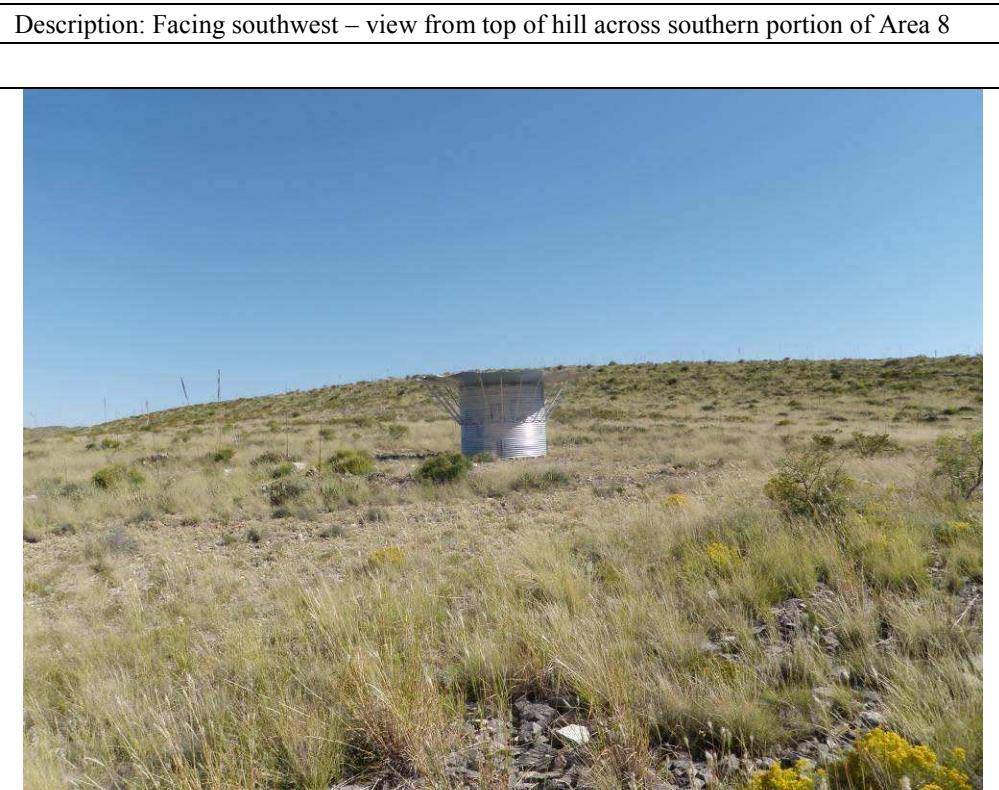
Time: 17:55

Site: Former Maneuver Area – Area 13

Description: Facing south – leave no trace; field team ensured that each area was left as it was found



Photograph No. 123	Date: 10/8/2010	Time: 10:02
Site: Former Maneuver Area – Area 8		
Description: Facing southwest – view from top of hill across southern portion of Area 8		





Photograph No. 125	Date: 10/8/2010	Time: 10:26
Site: Former Maneuver Area – Area 8		
Description: Facing southeast – vegetation in Area 8		



Photograph No. 126	Date: 10/8/2010	Time: 10:39
Site: Former Maneuver Area – Area 8		
Description: Facing southwest – dense vegetation in streambed		



Photograph No. 127	Date: 10/8/2010	Time: 10:42
Site: Former Maneuver Area – Area 8		
Description: Facing west – streambed within Area 8		



Photograph No. 128	Date: 10/8/2010	Time: 11:38
Site: Former Maneuver Area – Area 8		
Description: Facing south – western boundary of incremental sampling unit for sample FTBLS-IS015		



Photograph No. 129	Date: 10/8/2010	Time: 14:25
Site: Former Maneuver Area – Area 14		
Description: Facing northwest – sign at access point to Area 14		



Photograph No. 130	Date: 10/8/2010	Time: 15:22
Site: Former Maneuver Area – Area 14		
Description: Facing northwest – general site conditions for Area 14		



Photograph No. 131

Date: 10/8/2010

Time: 15:28

Site: Former Maneuver Area – Area 14

Description: Military tent stake; consistent with bivouac site



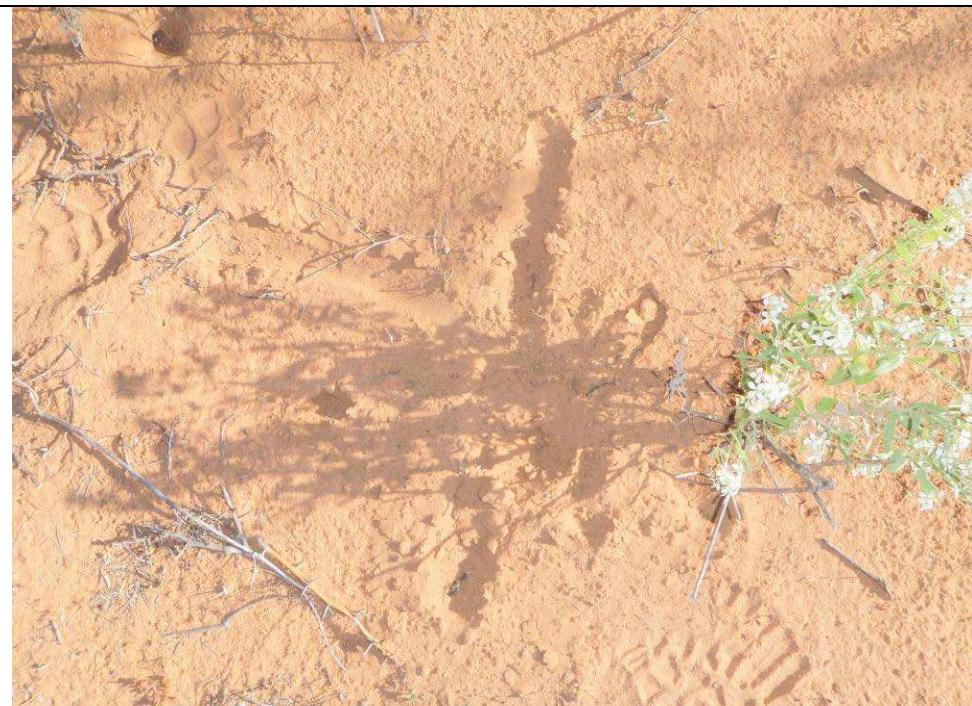
Photograph No. 132

Date: 10/8/2010

Time: 15:31

Site: Former Maneuver Area – Area 14

Description: 5.56mm blank shell casing



Photograph No. 133	Date: 10/8/2010	Time: 16:28
Site: Former Maneuver Area – Area 14		
Description: Sampling location for one increment in the incremental sample FTBLS-IS016		



Photograph No. 134	Date: 10/8/2010	Time: 16:29
Site: Former Maneuver Area – Area 14		
Description: Facing north – eastern boundary of the incremental sampling unit for sample FTBLS-IS016		

---

## Appendix D

---

**APPENDIX D**

**FIELD NOTES**

**FINAL SITE INSPECTION REPORT  
FORT BLISS  
EL PASO, TEXAS**

## DAILY FIELD REPORT

<b>Project:</b> Fort Bliss MMRP SI	<b>Date:</b> 4 October 2010
Time of Arrival at Site: 1040	Time of Safety Brief: 1110
Team Leader: Mary Franquemont	UXOSO: Scott Pontius
<b>Weather/Site Conditions:</b>	
Weather: Warm and sunny; slight southerly breeze; clear skies; low humidity	
Site Conditions: Low lying areas are relatively flat with wide-spaced cacti, shrubs, and grasses; Southern portion of Area 9 was encompassed by several low hills, which were covered with dense cacti. Ephemeral streams cross throughout all areas.	
<b>Site Activities Conducted:</b>	
0900 – In-brief at Fort Bliss with (b) (6) departed Fort Bliss at 0930	
0940 – Picked up field supplies at FedEx	
1040 – Arrived at Area 9; conducted site in-brief and safety brief	
1120 – Began visual survey of Area 9	
1520 – 1610 – Collected Incremental Sample (IS) from 1 acre area of site (49 increments); location was selected because it represented general site conditions. No evidence of significant military activity was observed	
1625 – Completed approx 4.2 line miles of visual survey in Area 9	
1700 – Began visual survey in Area 10	
1710 – Encountered an area that appeared to have been a firing point for .30 cal blanks firing. (See Below)	
1730 – 1815 – Collected IS from 0.5 acre area encompassing firing point (30 increments)	
1830 – Completed approximately 0.5 line miles of visual survey in Area 10	
<b>Items Identified at Site:</b>	
Area 9 – Observed one M14 Rifle Clip on rocky face within southern area of site	
Area 10 – Observed approx 20 .30 cal blank cartridges dated from 1943 through 1953; one starter tab from .30 cal Browning Machine gun belt; approx. 50 links from .30 cal; one M1 Garand clip; canister lid labeled "M104 Canister"; area was also littered with civilian shotgun casings and a few clay target pieces	
<b>Visitors to Site:</b>	
Name	Organization
N/A	
<b>Issues Encountered and Resolutions:</b>	
Collection of IS samples required approximately 45 – 50 minutes to layout sampling unit location and collect the increments. The team developed a system for laying out the sampling unit, which will speed up the process.	
Driving to the site takes approximately 40 minutes. The field team will leave earlier in the morning to get to the site in time to allow for more visual surveys to be completed.	
<b>Actions to be Taken:</b>	
Predesigned IS grids will be established for various sampling units to speed up the process of IS collection.	
Earlier departure time.	
Team plans to conduct visual survey in Areas 1, 2, and 3 on 5 Oct.	
<b>Time of Departure from Site:</b> 1830	

## DAILY FIELD REPORT

<b>Project:</b> Fort Bliss MMRP SI	<b>Date:</b> 5 October 2010
Time of Arrival at Site: 0715	Time of Safety Brief: 0820
Team Leader: Mary Franquemont	UXOSO: Scott Pontius
<b>Weather/Site Conditions:</b>	
Weather: Warm and sunny; slight southerly breeze; clear skies; low humidity; brief light rain shower in afternoon Site Conditions: Low lying areas are relatively flat with wide-spaced cacti, shrubs, and grasses	
<b>Site Activities Conducted:</b>	
<p>0715 – Attempted to access road to Areas 1-4; at 0750, encountered a locked gate with signage noting land was controlled by General Land Office.</p> <p>0815 – Arrived at Area 11; conducted safety brief and began survey. Access within Area 11 was limited do to limited ROEs. Identified several areas throughout site that appeared to be firing locations for small arms - blanks and live rounds (See below)..</p> <p>0910 – Collected IS sample from 0.5 acre area encompassing one of the identified firing areas.</p> <p>1017 – Collected composite sample in proximity to a large pile (several 100) .30 cal links and several 30-06 blank cartridge casings, and one 30-06 ball cartridge (complete).</p> <p>1145 – Completed 2.3 miles of visual survey transects in Area 11.</p> <p>1150 – 1320 – Attempted to access southern area of Area 11; locked gates were located on all access roads. Stopped at Don Meier's house to coordinate access to his property for Wed. Drove to Area 7 to begin survey. Lunch break.</p> <p>1320 – Began Survey in Area 7.</p> <p>1550 – Collected IS of general site area; no evidence of military activity or munitions was observed within the site.</p> <p>1640 – Completed 4.33 miles of visual survey in Area 7.</p> <p>1715 – Began survey in Area 5.</p> <p>1815 – Completed 1 mile of visual survey in Area 5.</p>	
<b>Items Identified at Site:</b>	
<p>Area 11 – Observed several areas throughout site that appeared to be as firing areas. Items identified included: one 30-06 ball cartridge (complete round), .30 cal Browning machine gun links, 30-06 blank cartridge casings dated 1948 – 1954, 5.56 blank cartridge casings dated 1972, 7.62 NATO blank cartridge casing dated 1974, and M60 machine gun belt link</p> <p>Area 7 – No munitions items were observed</p> <p>Area 5 – Expended smoke grenade top; 30-06 blank cartridge casing dated 1934; and two M14 stripper clips</p>	
<b>Visitors to Site:</b>	
Name	Organization
Don Meier	Private land owner (assisted with access through gate at Area 7)
<b>Issues Encountered and Resolutions:</b>	
<p>Time for collecting IS samples decreased to 30-40 minutes; however, the process is still slow.</p> <p>The field team was unable to access Areas 1-4, Area 10 (western portion); Area 11 (southern portion); and Area 12 due to locked gates. I contacted Burton Minton of the State GLO and made arrangements for a key to be provided to us. We will have the key by 10 am on Wed. Mr. Meier is assisting with access to Areas 10, 11, and 12</p>	
<b>Actions to be Taken:</b>	
The field team will conduct surveys in Areas 5, 6, and 8 tomorrow. In addition, an IS sample will be collected in Area 15.	
<b>Time of Departure from Site:</b> 1830	

## DAILY FIELD REPORT

<b>Project:</b> Fort Bliss MMRP SI	<b>Date:</b> 6 October 2010									
Time of Arrival at Site: 0810	Time of Safety Brief: 0840									
Team Leader: Mary Franquemont	UXOSO: Scott Pontius									
<b>Weather/Site Conditions:</b> Weather: Warm and sunny; clear skies; low humidity; steady southerly winds in afternoon Site Conditions: Low lying areas are relatively flat with wide-spaced cacti, shrubs, and grasses; few wetland/riparian areas in Areas 5 and 6										
<b>Site Activities Conducted:</b> 0850 – Began survey in Area 6 0900 – 1050 – Collected IS sample with triplicate. Waypoints were collected for all increments at the request of Wanda. 1250 – Completed 4 miles of visual survey within Area 6 1310 – 1435 – Collected IS sample in Area 15 1500 – Began survey in Area 5 1605 – 1650 Collected IS sample in Area 5 1725 – Completed 2.7 miles of visual survey with Area 5 1730 – Checked gate at GLO land to ensure key worked in lock – it did 1740 – Returned to Hueco Tanks Historic Site to check out munitions items that had been found within the park and are on display in the Interpretative Center.										
<b>Items Identified at Site:</b> Area 6 – Rimmed cartridge casing, labeled W.R.A Co 30 U.S.G, assumed to be from pre-1903 Area 5 – 30-06 blank star-crimped cartridge casing Area 15 – N/A										
<b>Visitors to Site:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 25%; text-align: center;">Name</th> <th style="width: 50%; text-align: center;">Organization</th> </tr> </thead> <tbody> <tr> <td style="width: 25%; text-align: center;">(b) (6)</td> <td style="width: 25%; text-align: center;">[REDACTED]</td> <td style="width: 50%; text-align: center;">Park Ranger, Hueco Tanks Historic Site</td> </tr> <tr> <td></td> <td style="text-align: center;">[REDACTED]</td> <td style="text-align: center;">Private land owner</td> </tr> </tbody> </table>			Name	Organization	(b) (6)	[REDACTED]	Park Ranger, Hueco Tanks Historic Site		[REDACTED]	Private land owner
	Name	Organization								
(b) (6)	[REDACTED]	Park Ranger, Hueco Tanks Historic Site								
	[REDACTED]	Private land owner								
<b>Issues Encountered and Resolutions:</b> None										
<b>Actions to be Taken:</b> The field team will conduct surveys in Areas 1-4 tomorrow.										
<b>Time of Departure from Site:</b> 1810										

## DAILY FIELD REPORT

<b>Project:</b> Fort Bliss MMRP SI	<b>Date:</b> 7 October 2010
Time of Arrival at Site: 0750	Time of Safety Brief: 0800
Team Leader: (b) (6)	UXOSO: (b) (6)
<b>Weather/Site Conditions:</b>	
Weather: Hot and sunny – temperature reached the low 90s; clear skies; low humidity; steady southerly winds in afternoon	
Site Conditions: Low lying areas are relatively flat with wide-spaced cacti, shrubs, and grasses; Area 2 had dense almost impassable cacti/yucca/mesquite along the site's eastern boundary	
<b>Site Activities Conducted:</b>	
0630 – 0750 – Traveled from hotel to Area 2	
0810 – 0930 – Completed approximately 1.75 miles per person of visual survey within Area 2	
0935 – 1005 – Collected IS sample within Area 2; 0.5 acres with 30 increments	
1005 – 1030 – Attempted to find found a route to Area 1 without any success	
1030 – 1120 – Worked our way to Area 4	
1130 – 1330 – Competed approximately 2 miles per person; identified 4.2-inch mortar impact area (see below); collected 2 composite samples and one QC sample	
1415 – Began to move to Area 3; however, a tire developed a slow leak so we decided to head into town for safety and to address the problem	
1530 – Ron Baca called. We discussed the need for an outbriefing tomorrow and decided that we would not meet in order for the field team to complete more work.	
1535 – 1630 – Completed approximately 1.3 miles per person in western portion of Area 13. We only have limited ROE access to this area.	
1650 – 1730 – Completed approximately .7 miles per person in eastern portion of Area 13. We only have ROEs for 3 parcels in this area.	
1730 – 1755 – Collected IS sample in proximity to residence located within the area; 0.5 acres with 30 increments	
1800 – Departed the site and returned to El Paso to address tire problem	
<b>Items Identified at Site:</b>	
Area 2 – N/A	
Area 4 – Identified fragments and fuzes from approximately 10 4.2-inch mortars	
Area 13 – N/A	
<b>Visitors to Site:</b>	
Name	Organization
<b>Issues Encountered and Resolutions:</b>	
None	
<b>Actions to be Taken:</b>	
The field team will conduct surveys in Areas 3, 8, 12, and 14 tomorrow.	
<b>Time of Departure from Site:</b> 1800	

## DAILY FIELD REPORT

<b>Project:</b> Fort Bliss MMRP SI	<b>Date:</b> 8 October 2010
<b>Time of Arrival at Site:</b> 0720	<b>Time of Safety Brief:</b> 0940
<b>Team Leader:</b> (b) (6)	<b>UXOSO:</b> (b) (6)
<b>Weather/Site Conditions:</b> Weather: Hot and sunny – temperature reached the mid 90s; clear skies; low humidity; steady southerly winds in afternoon Site Conditions: Low lying areas are relatively flat with wide-spaced cacti, shrubs, and grasses;	
<b>Site Activities Conducted:</b> 0630 – 0720 – Traveled from hotel toward Area 3; road to area became washed out and impassable approximately .5 miles from GLO gate. 0800 – Called Ysleta del Sur Pueblo to request access through gate to Area 8 0910 – Got through gate to Area 8 0935 – 1110 – Completed 2 miles per person survey in Area 8 1110 – 1140 – Collected IS sample: 0.5 acres, 30 increments 1140 – 1200 – Attempted to find access to original area 8 along southeast boundary of site. Were not able to access any roads into area. 1200 – 1310 – Attempted to find access to Area 12; eventually located trail along installation boundary that would lead into area; however, after about 0.25 miles road was washed out and became impassable. 1310 – Lunch Break 1430 – Arrived at Area 14. The area is actually within the installation fence. However, the dirt road accesses through a break in the fence. At the fence, a sign was located that read "Danger – Live Fire Training Area." Contacted Ron Baca regarding accessing the area. He told us to call Shane Offutt, Range Control Liaison. Shane said that the area we wanted to access was known as Maneuver Area 2D and has not been used for live fire. He said someone put the sign up there to discourage neighbors from entering the area when training activities (maneuvers) were taking place. He also said that some of the land in the area is owned by the state and some of it was owned by Fort Bliss. He felt that if we stayed within the area identified in the County records as being owned by the state we would most likely be on state property; however, he indicated the maps aren't always accurate and it may not be clear what land was state land and what was Fort Bliss land. 1445 – Processed toward Area 14 1450 – 1600 – Completed 2 miles per person of visual survey in Area 14. Identified area with tent stakes and generator grounding rod. 1600 – 1635 – Collected IS sample; 0.5 acres, 30 increments 1645 – Departed field 1700 – 1900 – Packed sample coolers and other gear. Dropped 4 coolers for shipment to TestAmerica (Saturday delivery) and 3 gear boxes for shipment to TLI at FedEx.	
<b>Items Identified at Site:</b> Area 82 – N/A Area 14 – 5.56 blank dated 1965	
<b>Visitors to Site:</b>	
Name N/A	Organization
<b>Issues Encountered and Resolutions:</b>	

See above regarding access issues.

**Actions to be Taken:**

Additional information regarding 4.2 mortars observed in Area 4:

- Research on the nomenclature on the fragments indicates the mortars contained white phosphorus (WP). These rounds would have been used during training as the WP would create a smoke plume upon impact that would assist with training.
- Shearing of the metal to make the fragments indicates that most of the frag was created by impact/detonation of fired rounds. However, some of the shearing indicates the frag was created by another explosive source indicating the a demilitarization/disposal detonation may have occurred in the area.

**Time of Departure from Site:** 1635

"Outdoor writing products for outdoor writing people."



RECYCLABLE

"Rite in the Rain" - A unique All-Weather Writing paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

Available in a variety of standard and custom printed case-bound field books, loose leaf, spiral and stapled notebooks, multi-copy sets and copier paper.

For best results, use a pencil or an all-weather pen.

a product of

J. L. DARLING CORPORATION

Tacoma, WA 98424-1017 USA  
(253) 922-5000 • FAX (253) 922-5300  
[www.RiteintheRain.com](http://www.RiteintheRain.com)

Item No. 301  
ISBN 1-932140-20-1  
©  
US PAT NO: 6,863,940

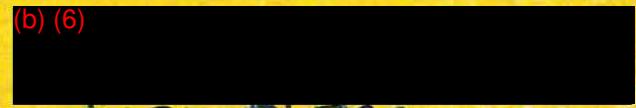


6 32281 30111 0



*"Rite in the Rain"*  
ALL-WEATHER  
**TRANSIT**  
No. 301

(b) (6)



FORT BLISS

4 Oct

0700 - FedEx office - No luck

Called FedEx - Can pick up boxes after  
0900

0830 - Visitor Passes

0900 - Ron's office - in-brief

0925 - Completed in brief

\* Note: on 4 Oct Camera time was  
incorrect (HI Time) - 4 hrs. early

1040 Arrived Area 9

Field Set up

1110 Safety brief

- UXO issues

1120 Began Survey

1140 Photo 1

E - vegetation along hillside  
near WP 185

03 Springfield

1158 Photo 2 ~~Miller~~ Riffle clip  
stripper

Photo 3 closeup  
RR WP ~~Miller~~ Riffle clip  
03 Springfield stripper

1242 Photo 4 South  
Field Team Traversing hill  
R & S

Photo 5 SW  
Field team traversing hill  
Mick

1320 Lunch Break

1408 Back to survey

Photo 6 - Cattle in Area 9

1520 Began IS 001

49 increments  
1 acre coverage  
Fine silty  
clay  
dry

1610 Completed IS

1625 Completed Area 9  
Saved Track  
Area 9 GPS5

4 F is 7 - Watering Hole in eastern Area 10

1700 Began Survey Area 10

1710 Found 30.06 Firing Pt.  
1943, <sup>1951</sup> 1952, 1953 observed dates

Starter Tab for 30 cal. Browning Machine gun belt

Blank casings ~ 15 cartridge casings obs.  
Clips ~ 50 links observed

Scot researched - Canister M104 is from an illuminating flare could be WWII present

M104 Canister lid ~ 1.5" in diameter

1730 Photo <sup>8-10</sup> 3 of M104 lid  
Photos <sup>11-12</sup> 2 of 30 cal blank

03 Springfield cartridge

\*44 rifle clip

1740 FTBLS - IS002

Area 10

0.5 acres

Area has a lot of shotgun shells casings; clay target

5

Area is on a small rise  
~20 ft above floor

Garand

1755 M1 Garand clip  
Photo 13

1750 Began collecting increments

1815 Completed IS

FTBLS - IS002

30 increments

0.5 acres

Fine silty clay - very rocky  
Photo 14 - Cow in Area 10

1830 Back at car  
Saved Track Area 10A GPS5

1015

30-06 Ball Cartridge (complete)  
WR 003

Photos

WMS

5 Oct 10

0630 Depart Hotel

0750 Route North to Areas 1-4  
blocked by locked gate

0815 Arrived Area 11

0820 Safety brief

0835 Began Survey

0845 WP 001

2 .30-'06 blank casings  
Marked 1948 FA (Frankfort Ar.)

Photos 15 & 16

0900 WP 002

.30 cal machine link

Assumed to be Browning

Photo 17 & 18

EE Lake City 1954  
.30-'06 blank cartridge casing

0910

FTBLS - IS 003

Area 11

30 increments

0.5 acres

Centered on M1 Garand Clip

0945 Completed IS

Observed area w/i IS Sampling

Unit w/ ~ 12 -30 cal

machine links all w/i ~ 3 ft.  
area

1015

30-'06 Ball Cartridge (complete)

Photos 19 & 20

1943

Located in proximity to huge  
pile of 30 cal. etc links and  
a few blank casings

1017 Collected composite sample

slightly downgradient from

huge pile of links

FTBLS - SS 001

Photos 21-23

hillsides

E & NE

possible target areas  
No ROE to target areas

1100

5.56 blank 1972

7.62 NATO 1974

RP Waypoint & photos

M60 Machine gun belt links  
(fires 7.62 NATO)

1145 Completed transect

Area 11A GPS5 - transect name

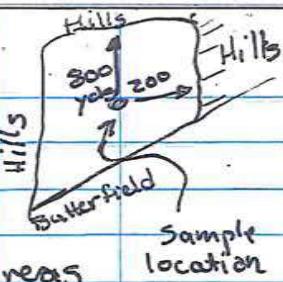
2.3 miles

Photo 24 - SW

Streambed in central site  
area

1200 Photo 25

Locked gate off Stagecoach  
Can't access area 11 south



1220

(b) (6)

Phone

Stopped @ (b) (6)

Left business card w/ wife;  
he'll call us

1230 - Drove to Montana & DR

to try to access area 10 &

11 (south) - gate locked gate

Drive to Area 7

1250 - Lunch

Called (b) (6)

- left message  
asking if he had key to gate  
on London Rd.

(b) (6)

Called (b) (6)

He'll try to determine if  
key exists - It'll be in  
Austin or Alpine.

Suggested he could FedEx to  
us

He'll call back

1320 Began Survey Area 7

Photo 26 Survey Team in Area 7  
NE

1500 (b) (6) stopped by to  
warn us about a bull in the  
area "Billy Bob Thornton" He  
likes to be petted & may  
approach us

1550 ~~FT~~<sup>FT</sup> FTBLS - IS 004

0.5 acres

30 increments

Area reflects general site conditions

No evidence of any military  
activity - very little trash

(b) (6) said (b) (6) leased  
area from state for 20 yrs

1615 Completed Sample

1646 Completed Survey

1715 Began Survey Area 5

1728 Photo 27  
N Fence line along W of  
Area 5

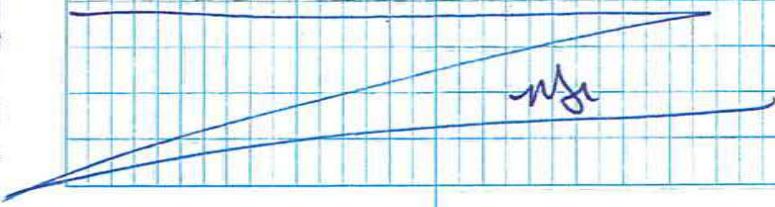
1731 Photo 28  
Smoke grenade top - expended

1740 Photo 29

30-06 Frankford Arsenal (F)  
1934

1750 Photo 30  
03 Springfield stripper clip  
~~1914 stripper clip~~  
2

1815 Completed 1 mile transect  
AREA 5A GPS 5



6 Oct

0725 Departed Hotel

0810 Arrived Hueco Tanks  
Met w/ Wanda

0850 Began survey Area 6

0900 Began IS grid layout  
1.0 acres  
50 increments

1050 Completed IS w/ Trip.

FTBLS - ISΦΦ5

ISΦΦ6

ISΦΦ7

1135 Cartridge Casing

W.B. A Co J marking

304.5.6

WP 004 Winchester Repeating  
Arms Co.

Pre- to 1903

Rimmed cartridge

Black-powered cartridge

Item was given to Wanda  
along w/ GPS waypoint data

1045

Photos 31 Laying IS Grid

NW

32 N IS area

33 NW IS area

1112 Photo 34 N Dam from South

35 SW Survey team on

36 - WPO04 item

37 - ~~46~~ - She photos of label1140 Completed survey  
Area C A GPS5 - transect1210 Began 2<sup>nd</sup> survey1225 p.s. central area of Hueco  
Photo 42 42

Photo 43 SW - drainage

44 NE - drainage

1236 45 Survey in central  
Area of Hueco

1250 Completed survey

Area C B GPS5 - transect

1300 Arrived @ gate to Meier's

\$16.96 - cost of H<sub>2</sub>O & ice  
No receipt

1110 - Arrived site  
Lunch break

1350 Began laying grid

FTBLS - IS ØØØ

0.75 acres

40 increments

1425

Photo 46 -  
Collecting IS

Photo 47 -

1405 Began increment Bad photo

1435 Completed increment

Arrived

1500 Began survey Area 5

1510 Began survey

1601 Photo 50-51 - SE Field Team in Area 5

1605 Begin IS Triplicate

FTBLS - IS ØØØ, IS ØØØ, IS ØØØ

0.5 Acre

30 increments

No evidence of mil. or munitions  
Random sample of general  
site conditions

1650 Completed IS

1705 Photo 52

30-06 Blank Cart. Casing  
Star Crimped

1945 FA

1725 Completed transect Area 5  
Area 5B GP55 - Transect

Sample Processing 2000 -  
IS Field Duplicate

FTBLS - IS ØØØ

duplicate of FTBLS - IS ØØØ

date of duplicate: 4 Oct

time: 1530

Photo 48 ~~N~~ - Eastern  
boundary of IS sampling  
unit

Photo 49  
SW - Across Sampling Unit

WJ

7 Oct 10  
 0630 Departed hotel  
 0750 Arrived Area 2  
 0810 Began Survey  
 0834 Photo 53 W  
 Veg. in Area 2  
 Very dense cacti/yucca  
 0930 Completed Transect of Area 2  
 1.72 line miles (Mick & Me)  
 0935 Began grid for IS  
 0.5 acres 30 increments  
 FTBLS - IS Ø13

Photo 54 NW  
 Tank in western portion  
 of Area 2  
 Water impoundment is entirely  
 fenced.  
 0945 - Began collecting IS  
 1005 - Completed IS  
 1030 - Spent 25 min. trying to  
 find access to Area 1  
 No tracks are passable with  
 this vehicle.  
 Abandon area 1 survey

1120 After several attempts  
 Arrived Area 4  
 1130 Began Survey  
 Photos 55-56  
 S - Rock outcroppings  
 at southern boundary of  
 Area 4  
 1200 Photo 57 - W  
 Mick @ western boundary  
 Area 4; fence & outcropping  
 HE detonation frag.  
 1220 WP Ø05  
 Frag. from HE shell  
~~1230~~ ~~Very old piece of artillery~~  
 frag.  
 No other evidence  
 (Shell holes or other frag.)  
 Photos 58 & 59

Photos 60 & 61  
 View east across site  
 from WP 133

WP 006 006  
 Large frag  
 No rotating band  
 to 12" x 4"  
 Photo 62

1245 WP 007  
 Large frag Area  
 5 large pieces  
 1 fuze expended  
 6 small pieces

M2 Mortars 4.2"  
 1251 N <sup>Photo 63</sup> Visual survey in Area 4 my

Samples

FTBLS- SS 003-M  
 SS 003-E

FTBLS- SS 004 - M ] dup  
 SS 004 - E

Photo 63 - E - Frag distribution area  
 Photos 64 - 65 - frag

66 - 68

Photo 69 - Sample FTBLS- SS 003

1316

Photo 70 Small frag

1344 Photo 71 - E Rock out  
 cropping at eastern edge of  
 Area 4

1330 Completed Area 4 Transect  
 Area 4 GPS5  
 Processed samples  
 Lunch Break

1415 - Began trek to Area 3  
 Low tire pressure  
 Went back to El Paso to  
 get it ~~fix~~ air.

1535 Spoke w/ (b) (6)  
 Won't do debrief tomorrow  
 (b) (6) out at 3:30 and we  
 has need to keep working

1535 Arrived Area 13.  
 Western piece

1613 WP ØØ9 Com Wire  
Steel core consistent w/  
military

Photo 72 N

Abandoned bldg at  
N end of area

1630 Completed Area 13A

1650 Began Survey Gamboa  
Property

1730 Completed Survey  
Photos 73 - 74 Pictures to  
East from top of mtn.  
in Gamboa prop.

Photo 75 N. toward  
N. area 13

1730 Began grid  
FTBL'S. Ø14  
0.5 acres  
30 increments are maybe present

Observed skeet target pieces  
in IS sampling unit

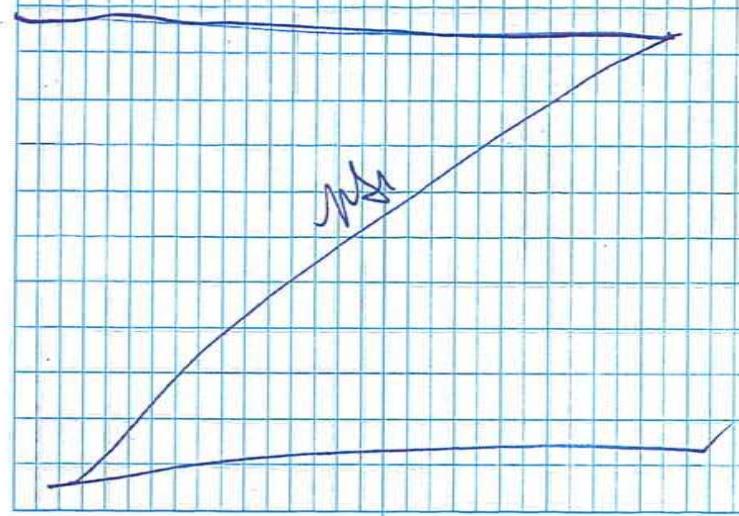
1755 Completed IS  
Sampled in vicinity to  
residences

1800 Departed site

Right front tire has a slow leak  
Took car to CostCo  
Got problem Fixed

1823-18

2030 - Arrive back @ hotel



8 Oct 10

0630 Departed hotel

0720 Arrived gate entrance to Area 3

Tried dirt road into Area 3

After about  $\frac{1}{4}$  mile road beg became impassable.

This is the only route into Area 3 :: we can't complete Area

0745 Locked GLO gate

0800 Called Arvesto Cruis (sp?)

Isleta del Sur

He can get access to gate for Area 8

0815 Arvesto called back

Someone will be at gate in ~30 min.

0800 - 0835 - Waited in Hueco

Tanks parking lot

0835 - 0910 - Waited by gate

Got thru gate

0935 - Arrived Area 8

0945 - Began Survey

1005 - Photo 76 SW

View from top of hill across

S. portion of Area

1021 Photo 77 N - Water Tank  
1039 Photo 78 SW - Dense veg. in stream  
1042 Photo 79 W - Streambed

1110 Completed Survey

1110 Began laying out grid

FTBLS - IS.015

0.5 Acre

30 increments

1140 Completed Increment

1310 After many attempts to find access to area 12

We were not successful.

Gave up on accessing 12

1430

Lunch Break

1430 Arrived Area 14

Photo 80 NW - Sign at access point to Area 14

1531

1450 - Arrived Area 14  
 1533 - WP Ø1Ø  
 S.56 Blank  
 LC 65  
 Possibly M14 or M16

<sup>Saw</sup>  
<sup>smg comm.</sup>  
 wire

Photo 81

1600 Completed visual survey

Began IS  
 FTBLs - IS Ø16  
 0.5 acres  
 30 increment

1635 Done!!

2.4 miles  
 Area 14 GPS5

1700 Back to Hotel  
 Sample packing

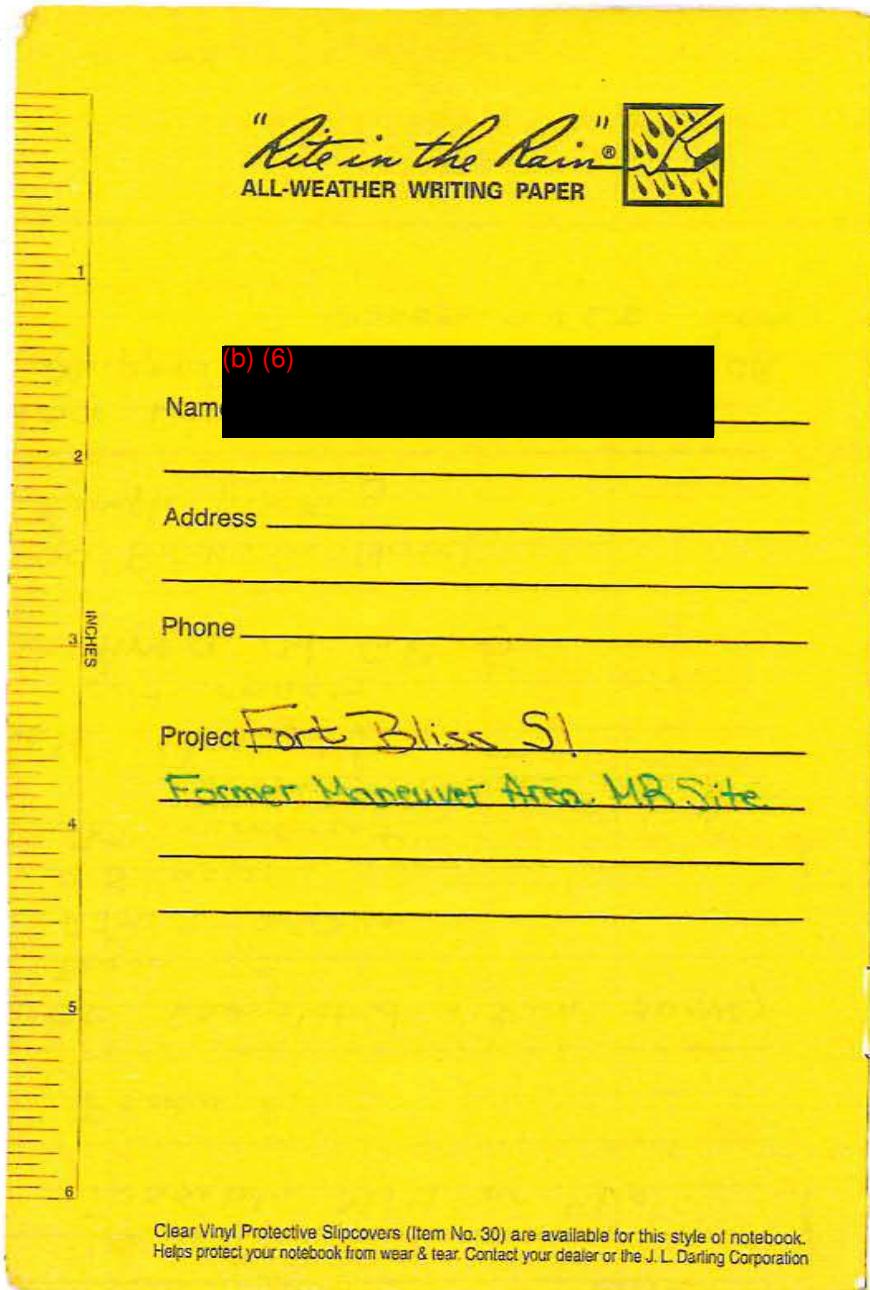
1900 Departed FedEx  
 Shipped 4 coolers - TA SDR  
 3 boxes - TLI 2-day

Notes:

- Based on research on nomenclature seen on 4.2 mortar frag., determined it is probable that the mortars contain White Phosphorus. WP would have made a smoke when they impacted which would assist w/ training.

- The shearing of the mortar frag. indicates that most mortars exploded on impact.

Other frag indicates the item was destroyed by a detonation (not exploded). This indicates a disposal/demo clearance may have occurred.



2

10/4/10

o

09:05a In-Brief w/ Ron Baca

09:25a Left MPN

Went to FedEx to pick up equip

10:40a Arrive at Area 9

11:00a UXO Safety Brief

11:15a Begin Visual Survey

11:30a Camera 2

① Facing NN. Site conditions/ vegetation.

11:42a ② Facing SE - Members of field team standing on hill on E edge of site. Site vegetation

11:40a ③ Desert Tortoise in cow pat

11:58a ④ M14 Rifle Off - Waypoint

13R 0398010

3523819

11:59 photo (Camera 6)

12:30p ⑤ Facing W. Site conditions.

⑤ Facing E. Steep, rocky hill in Area 9. From middle of hill.

1320p Stopped for lunch.

1400 Began second half of visual survey for Area 9.

1428 ⑥ Facing W. Southern portion of Area 9.

3  
10/4/10 o

15:15 Stopped to take 1S sample

~~1S 1HS C~~

16:05 ⑦ Facing N. 1S sampling unit.

③ Same from middle of W end.

16:12 Completed 1S sample. FTBS-15001

Took 49 increments in a 1 Acre Sampling Unit with corners at MPN col. 001, 002, 003, and 004 on GPS 7. Soil was

001 13R 0397380 fine, silty  
3524841 clay w/ low002 13R 0397381 moisture  
3524778 content003 13R 0397319  
3524778004 13R 039732D  
3524845

16:25 Completed visual survey of Area 9.

16:40 Left Area 9 Headed to Area 10.

16:45 Arrive at Area 10.

1700 Began visual survey of Area 10.

1710 Discovered target area.

30-05 black shell casings from '43, '52, '53 and links.  
'51, '44

4 10/4/10 M1 Garand clip  
M14 Rifle clip.  
Starter tab from Browning machine  
gun belt.  
~12 shell casings  
~50 links  
M104 cap of shipping container  
Could be rifle grenade or  
illumination  
On top of hill w/ crest ~ 20ft  
above surrounding area.  
1730 Began laying grid for 1/2  
acre incremental sample w/  
30 increments.  
Began sampling.  
S# FTB13 - 15002  
Joint corners at WP 014, 015,  
016, and 017 on GPS 7  
014. 13R 0397524  
3526573  
015 13R 0397478  
3526567  
016 13R 0397490  
3526523  
017 13R 0397535  
3526531  
There is also plenty of shotgun  
shells (civilian) and other cultural  
debris.

5 10/4/10  
1744 ⑨ Facing W. View of site  
from target area.  
All finds located w/in the 15  
boundary.  
1816 ⑩ Facing W. i. Logs marking  
southern boundary of sampling  
unit.  
⑪ Facing N. Sampling unit.  
Completed sampling.  
Soil was fine, silty clay w/  
low moisture content. Very  
rocky - Varying size.  
1825 Headed back to truck - losing  
light.  
1830 Completed area 10 for today.  
1920 Arrive at hotel  
Conditions were mid to upper  
80s, sunny, dry with an  
intermittent light breeze.  
Note: Mary and I left the hotel at  
0700 to go to FedEx to find  
our field equipment. Finally  
found out where the packages  
were and that we could pick up  
after 0900. Picked up ~ 0940.

10/5/10  
0650 Left hotel  
0745 Locked gate - can't access state lands for Areas 1 and 2 and 3 and 4.  
0750 Headed to Area 11.  
0802 Arrive at Area 11.  
0815 Daily tailgate safety brief.  
Cloudy, ~70°F  
0830 Began visual survey transect.  
⑫ Facing SW. General site conditions  
⑬ Facing NE. General site conditions  
0843 2 ~~30-06~~ .30 - '06 shell casings - blanks. Many photo & 'Napoleon' 1948 Frankfort.  
0854 Communication wire.  
Comm WIRE = WP  
13R 03916653  
3529953  
⑭ Comm Nire.  
0903 M1 Garand Clip  
.30-06 shell casings (5)  
WP = GARAND CLIP  
13R 03916646  
3530015

10/5/10  
⑮ Garand clip and casing on log book.  
⑯ Garand clip and casings.  
Many found link and casing so totaling 15 - 1/2 acre w/ 30 increments.  
0910 Began laying out grid for IS sampling unit.  
Corners at WP 019, 020, 021, 022 on GPS 7.  
019 13R 03916632  
3530034  
020 13R 03916621  
3530002  
021 13R 03916664  
3529990  
022 13R 03916677  
3530027  
RDP  
Soil low moisture content.  
Soil was rocky and fine, silty clay.  
⑰ IS sampling unit for Area 11.  
Facing S. From center of unit.  
⑱ IS sampling unit - southern boundary. Facing W.  
0945 Completed IS.

1015/10

While taking increments, found a pile of at least 12 links.

1000 Pile of 1954 .30-06 casings and links. At least 1/2 of each.

NP .30-06 CASINGS

13R 0394587

3529986

1013 Large pile of .30-06 links ~500. Browning machine gun.

1014 Browning machine gun link. Size. ~ belt Starter tabs.

Also found full live cartridge - .30-06 Ball.

1017 WP LINK PILES

13R 0394589

3529809

FTBLS-55-001 → this WP was also for discrete sampling location.

1025 Mary took spoke and took sample in proximity to links.

1025 72 5.56 blanks

74 7.62 blanks

110 link

WP 5.56/7.62

1015/10

13R 0394225

3529197

1107 20) Shell casings w/ link

1110 21) Vegetation in central portion of Area II.

1113 Completed first portion of Area II.

1150 Headed to the second portion of Area II.

1200 Locked gate - can't access.

1215 Stopped by the house of Don Meier to inquire about the locked gate on his property. Wasn't home. Left a msg to call us.

1233 Tried to access <sup>another</sup> road to Areas 11 and 10 - locked gate.

1244 Arrive at Area 7.

1323 Beginning visual survey transect.

1345 22) Herred toad: lizard

1347 23) Facing N.E. Area 7 general site conditions. Three tanks in background.

1500 Don Meier stopped by Area 7.

10

1015/10

1546 Stopped for incremental sample  
 1550 Performing 1/2 acre, 30 increment  
 Sampling w/ corners marked by  
 WP D23, D24, D25, and D26  
 on GPS 7.

023 3R 0401329  
 3528385

024 13R ~~0401329~~ 0401368  
~~3528385~~ 3528410

025 13R 0401345  
 3528448

026 13R 0401305  
 3528425

1600 Began sampling. FTBLS - 15004  
 1555 24) Laying out 15 grid. Facing W.

25) Field documentation

Soil was low moisture, fine, silty  
 clay and was rocky.

26) 15' unit for Area 7. Facing NW  
 Western boundary of

27) Sampling area. Facing NW.

1620 Completed 15

1645 Completed Area 7

1655 Headed to Area 5

1705 Arrived at Area 5

11

10/5/10

1715 Began visual survey transect  
 for Area 5.

1725 (28) General site conditions.  
 Facing NE.

1727 - 30-de blank shell casing. SL 43  
 NP A5 CASE  
 13R 0401302  
 3532980

(29) - 30-de shell casing  
 1731 Top of grenade consistent w/  
 smoke grenade. Expended fuze.  
 Many photo. Possible M18  
 dates to 70s. Maneuver Area?  
 INP SMOKE FUZE

13R 0401299  
 - 3533035

1733 FA 34 - 30-de blank shell  
 casing. Many photo  
 INP 34 30-06

13R 0401293  
 - 3533067

1745 M14 stripper clip. Many photo.  
 WP A5 M14 CLIP

13R 0401287  
 3533230

12

10/5/10

0810 Completed visual survey transect. Headed out because getting dark. Will come back later. Arrive hotel.

23  
10/5/10

13

10/6/10

0725 Left hotel to meet park ranger at Huasco Tanker State Park.

0810 Arrive at Huasco Tanks HQ. Spoke w/ Wanda about survey and sampling.

0824 Wanda guiding us to sampling site

0830 Arrive at site.

0840 Tailgate safety brief

0855 Drive to sampling location

Began laying out 1 acre grid for 50 increment, N.S. Corners at WP 028, 029, 030, 031

0925 Began sampling. FBLS-150065

028 13R 0401075

3531976

029 13R 0401136

3531961

030 13R 0401122

3531896

031 13R 0401060, 3531914

0950 (31) Sampling team performing N.S. Facing W.

0952 (31) Same.

0956 (32) Facing W. Sampling team collecting soil and WP for increment.

14

10/6/10

Also performed duplicate - FTBLS-006 and triplicate - FTBLS-15007 1S. Soil was fine silty clay, extremely low moisture. Some was very rocky.

1045 Completed Sampling.

1045 Wasn't feeling well so went to car.

1100 Mary, Mick, and Wanda surveyed the face of the dam.

1210 Began visual survey transect between rocks of Huaco Tanks.

1237 ~~33~~ Facing E. General site conditions.

1250 Completed visual survey transect. Note: The clips previously identified as M14 Rifle chip were determined to be '03 Springfield Rifle Clips.

1300 Met Don Meier to perform 3/4 acre 1S. 40 increments to be taken. FTBLS-15008

1315 Stopped for lunch.

1345 Began laying out grid - Area 15.

1355 ~~34~~ Facing W. Area 15 site conditions.

1405 Began sampling

15

10/6/10

1430 Completed Area 15 1S marked by corners as WP 001, 002, 03, 04 on GPS u.

001 13R 0402453  
352680

002 13R 0402458  
3526854

003 13R 0402403  
3526856

004 13R 0402400  
3526803

Soil was fine, silty clay - low moisture.

1453 Arrive at Area 5 to complete visual survey transect.

1513 Begin transect. Mary and Mick taking middle "petal". Scott and I taking Eastern petal.

1542 ~~35~~ Facing NW. Area 5 - eastern petal.

1605 Stopped to collect 30 increment sample over 1/2 acre.

1610 Began laying out grid. This will be a triplicate.

16

10/16/10

Samples FTBLS - 009  
 FTBLS - 15010  
 FTBLS - 15011

1620 Began sampling.

1650 Completed sampling w/ corners  
 at WP 005, 006, 007, and 008  
 on GPS 1e.

005 13R 0401973

3533334

006 13R 0402002

3533367

007 13R 0401964

3533389

008 13R 0401931

3533354

1653 (36) Facing NE. Eastern boundary  
 of the sampling unit.

Soil was fine, silty clay w/ low  
 moisture. Semi-rocky. Easily  
 compactible.

1705 WP A5 FA 45. Another in proximity  
 - 30- '06 blank, star crimped,  
 shell casing. 1945. Many photo.

13R 0401918

3533240

17

10/16/10

1720 Completed 1hr. 5 visual survey  
 transect.

Heading up to make sure the  
 key works for the Texas Land  
 gate. The key was dropped off  
 at the state park HQ.

1734 Success!

1745 Arrive at Hueco Tanks State  
 Park to help identify their  
 collection of munitions.

1801 Headed back to hotel.

→ Signal flares from WDs / T0s

→ 4.5-70 Government Cartridge  
 from tests mid to late 1940s  
 century. 1850s-1880s.

These items were identified in  
 the case at Hueco Tanks. All  
 were found within park and are  
 items not yet found by ~~sample~~  
 field team.

Weather conditions - in the upper  
 80s today. Sunny w/ light breeze.

237

Vollet 10

10/7/10

0800 Arrive at Area 2.

0805 Daily Tail gate safety brief

0815 Began visual survey transect

0830 ④ Facing NE. Vegetation and site conditions for Area 2.

0911 ③ Tarantula

0925 Completed visual survey transect. Going to take 1/2 acre 1s.

0930 Arrive at 1S unit. Taking 30 increments. Note. Mary and Mick went to the S for Area 2 transect. Scott and I went to the N.

0930 Began laying out grid for 1S unit. FTBLS-①3.

0938 ④ UXO techs laying out sampling

0945 Began sampling

1005 Completed sampling w/ corners at WP #01, #02, #03, and #04 on GPS.

① 01 13R 0399580  
3538201

① 02 13R 0399620  
3538232

① 03 13R 0399652  
3538201

① 04 13R 0399617  
3538169

10/7/10

1010 Area 2 completed

1005 ④ Facing N. Eastern boundary of 1S unit for FTBLS-①3.

1005 ④ Facing NW. 1S unit for Area 2.

1030 Spent 25 minutes trying to gain access to Area 1. Attempted several routes. All were impassable. Cannot go to Area 1. Going to Area 4.

1118 Spent 45 minutes trying to find a possible road into Area 4. Finally arrive at Area 4.

② Began visual survey transect for Area 4.

1154 Facing W. Dense vegetation w/ in Area 4.

1225 Identified X Shell M2A...

Fuze M2-XX-Lot P-236-1  
4.2 inch Mortar shells

Took waypoints of 3 separate pieces w/ location of 55④2.

② Took composite sample in proximity to base w/ rotating band obturator/

10/7/10

(SS photo facing SE.)

Appears there's enough pieces to make 7 shells. Look like they were put into a pile and disposed of by EOD. Scattered over 25-30 meter diameter.

CH. M. Shell M2

P255 - 22 - HYBRIL - R

The above is nomenclature on shell

What was initially found was on eastern edge of scattered debris that is enough to make at least 12 shells over 50m diameter.

Could be impact area or DB/OD. Maybe impact area that was swept and BIP buds.

Below is a list of waypoints associated with the mortar MD

- 1216 FRAG 13R0398561, 3535949
- 1238 FRAG2 13R0398553, 3535944
- 1239 FRAG3 13R0398553, 3535943
- 1315 FRAG4 13R0398640, 3535736
- 1316 ØØ1 13R0398646, 3535712
- 1317 ØØ2 13R0398628, 3535676

10/7/10

1319 ØØ3 13R0398674, 3535603

1321 ØØ4 13R0398723, 3535565

1324 ØØ5 13R0398766, 3535166

1326 ØØ6 13R0398801, 3535345

FRAG1 was the first item of

MD found. FRAG2 and FRAG3

were the locations of the

rotating bands in proximity to the sampling location. FRAG1

4 and ØØ1 - ØØ6 were waypoints for random pieces (not all) along the way back to the car.

1238 WP SS002 is the location for the composite soil sample taken in proximity to the MD. FTBL5-5002  
13R0398553, 3535944

1220 (3) Fragment from 4.2 in mortar shell

(4) Facing SE. Frag in relation to site.

1221 (5) Obturator / rotating band from 4.2 inch mortar shell.

1230 (6) Rotating band / fragmentation from 4.2 inch mortar shell.

10/7/10

1230 ⑦ Several fragments from multiple 4.2 inch mortar shells.

1240 ⑧ Composite soil sample FTBLS-55002 location.

1241 ⑨ Facing SE. Soil sample location in relation to site.

1303 ⑩ Fuze from the 4.2 inch mortar shell.

1340 Completed visual survey transect for Area 4.

1345 Stopped for lunch.

1425 Headed to Area 3.

1435 Warning for low tire pressure. May have flat tire. Going to go inflate tire and monitor it while working at a site closer to town - 13 or 14.

1530 Arrive Area 13.

1540 Began visual survey transect for the first section of Area 13.

1625 Completed visual survey transect for Area 13.

1629 ⑪ Facing N. Area 13 general site conditions.

10/7/10

1130 Going to other section of Area 13 to perform 1/2 acre, 30 increment sample.

1140 Arrive at second portion of Area 13.

1150 Begin visual survey transect.

1150 Completed visual survey transect. May and Mick took the hill. Scott and I took the thicket.

1151 ⑫ Facing E. General site conditions.

⑬ Mesquite branch. One of unspent human flesh loving poky things.

1150 Began laying out grid for 15.

1155 Began sampling. FTBLS-15014.

1153 Completed sampling.

1154 ⑭ Facing S. Western boundary of 15 unit in proximity to residences.

1155 ⑮ Facing S. Leave no trace - evidence of picking up flags.

1800 Completed Area 13.

1810 Tire leaking - going to have it fixed. Tire - Costco - 915-774-5203

6101 Gateway West Blvd 830<sup>1</sup>  
El Paso, TX 79925

10/8/10

0630 Left hotel  
 0730 Gave up trying to get to Area 3.  
 The road is impassable.  
 0758 Arrive at Huero Tanks to call  
 Tribe for access to Area 8.  
 0815 Tribe is sending someone out  
 to open gate. Should be there in  
 about 30 min.

Note: The corners for the 1S unit in Area  
 13 near the residences are saved  
 as waypoints 005, 006, 007, and 008  
 on GPS 7.

1727 005 13R 0392072, 35271627  
 1728 006 13R 0392092, 35271586  
 1730 007 13R 0392050, 35271567  
 1733 008 13R 0392081, 35271608

The soil was rocky, low moisture  
 and had a fine silty clay texture.  
 0910 The person arrived to open the  
 gate.

0940 Daily tailgate safety brief.  
 0950 Began visual survey transect.  
 1021e (6) Filming SE. Vegetation in Area B.  
 1110 Completed Visual Survey transect

10/8/10

1110 Began laying grid for 1S unit  
 for Area 8. FTBLS-015.  
 1115 Began sampling  
 1140 Completed sampling.  
 1140.5 (6) Facing S. Western boundary of  
 1S unit in Area 8.  
 1153 Completed Area 8. w/ corners at  
 WP 009, 010, 011, 012.  
 115 009 13R 0404419, 3529372  
 110 13R 0404389, 3529337  
 011 13R 0404423, 3529307  
 012 13R 0404452, 3529342  
 1315 Can't find a way into Area 12.  
 Tried several routes for more  
 than an hour. They were either  
 blocked or impassable.  
 1315 Stopped for lunch  
 1338 Headed to Area 14  
 1418 Arrive at Area 14. There is a  
 sign posted that says "Danger  
 Keep Out. Live Fire Range."  
 Many is calling (b) (6)  
 Note: It is in the upper 80s/low 90s  
 today. Sunny w/ a light breeze.

10/8/10

1450 Got the okay to go in. Arrived at Area 14.

1521 ⑤ Tent stake - potentially military - consistent w/ bivouac area.

1522 Starting NW. General site conditions for Area 14.

1528 ⑤ Military tent stake. Consistent w/ bivouac site.

Chem. light nearby as well as a grounding rod for a generator.

1600 Complete visual survey transect. Begin laying out grid for 15 unit. FTBIS - 016.

1610 Begin sampling

1630 Completed 15 sample with unit corners at WP 03, 04, 05 and 06 on GPS 7.

013 13R 381832, 3572022

014 13R 381785, 3572032

015 13R 381801, 3572075

016 13R 381845, 3572065

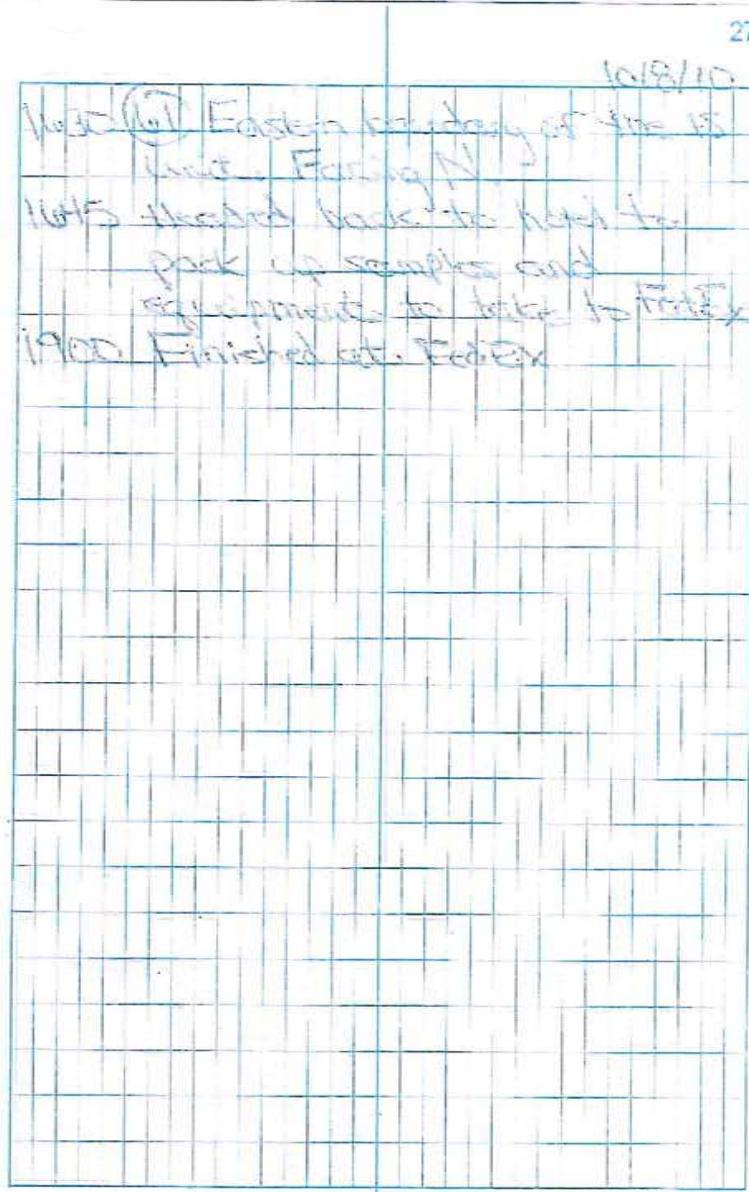
1630 ⑥ One increment in the 15 sample FTBIS - 15016 from Area 14.

10/8/10

West (W) Eastern (E) boundary of the 15 unit. Facing N.

1645 Headed back to truck to pack up samples and equipment to take to front.

1900 Finished set. Fedex



"Outdoor writing products for outdoor writing people."



RECYCLABLE

"Rite in the Rain" - A unique All-Weather Writing paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

Available in a variety of standard and custom printed case-bound field books, loose leaf, spiral and stapled notebooks, multi-copy sets and copier paper.

For best results, use a pencil or an all-weather pen.

a product of

J. L. DARLING CORPORATION

Tacoma, WA 98424-1017 USA  
(253) 922-5000 • FAX (253) 922-5300  
[www.RiteintheRain.com](http://www.RiteintheRain.com)

Item No. 301  
ISBN 1-932149-20-1  
©  
US PAT NO: 6,863,940



6 32281 30111 0

UX050  
FT. BUSS ST  
100410-100810



*"Rite in the Rain"*  
ALL-WEATHER  
**TRANSIT**  
No. 301



(b) (6)

Name \_\_\_\_\_

Address \_\_\_\_\_

## Phone

Project FT BLISS 51

WKO SAFETY OFFICER

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

## CONTENTS

MON 4 OCT 2010

(b) (6)

0900 MTG WITH [REDACTED] BASE IRP TO BRIEF  
HIM ON THE SI

1040 AREA 9 ARRIVE, SET UP GEAR.

1105 SAFETY BRIEF

1115 BEGIN SURVEY

1320 LUNCH

1400 RESUME SURVEY

1640 DEPART AREA 9 MOVE TO AREA 10.

1700 BEGIN SURVEY

1835 FINISH FIELD OPS FOR THIS DAY

1920 ARRIVE AT HOTEL, SECURE.

ATR Port

SCOTT R. PONTIUS

UXD50

10/8

TUE 5 OCT 2010

0630 DEPART HOTEL

0800 ARRIVE AT AREA 11.

0815 SAFETY BRIEF

0830 BEGIN SURVEY

1145 SURVEY COMPLETE, MOVING TO NEW AREA.

1245 ARRIVE AT AREA 7.

1320 BEGIN SURVEY

1645 SURVEY COMPLETE, MOVING TO NEW AREA.

1705 ARRIVE AT AREA 5.

1715 BEGIN SURVEY

1810 SURVEY COMPLETE

1930 ARRIVE AT HOTEL, SECURE.

ATR Port

(b) (6)

UXD50

10/8

WED 6 OCT 2010

0725 DEPART HOTEL  
 0810 ON SITE  
 0840 SAFETY BRIEF  
 0855 BEGIN SURVEY IN HUECO TANKS STATE PARK AREA. PARK RAVINE IN ANDA ESCORTING.  
 1045 REBECCA PESHA IS NOT FEELING WELL, WE PUT HER IN THE VEHICLE FOR A BREAK. I AM MONITORING HER CONDITION.  
 1115 (b) (6) FEELING MUCH IMPROVED.  
 1250 SURVEY COMPLETE  
 1300 ARRIVE AT AREA 15  
 1315 LUNCH  
 1345 BEGIN SURVEY/SAMPLING  
 1430 SURVEY COMPLETE  
 1450 ARRIVE AT AREA 5  
 1720 SURVEY COMPLETE  
 1800 DEPART SITE  
 1835 ARRIVE AT HOTEL, SECURE  
 (b) (6)

WX050

10/08

THU 7 OCT 2010

0630 DEPART HOTEL  
 0800 ARRIVE AT AREA 2  
 0805 SAFETY BRIEF  
 1010 SURVEY COMPLETE, MOVING TO NEW AREA  
 1130 AT AREA 4, BEGIN SURVEY  
 1225 LOCATE PIECES OF 4.2" MORTAR, BEGIN SEARCH OF THE AREA  
 1340 WE FOUND MD FROM MULTIPLE 4.2" MORTARS SCATTERED OVER A WIDE AREA. FUZES IDENTIFIED AS FUZE M2, MORTARS ARE MARKED CH. M. SHELL M2 POSSIBLE WP (WHITE PHOSPHORUS). MOST FRAGMENTS ARE FRACTURED IN A WAY CONSISTENT W/ FUNCTION AS DESIGNED, A FEW FRAGMENTS ARE CRUSHED INWARD IN A WAY CONSISTENT W/ BIP. AREA 15 IS A PROBABLE IMPACT AREA.  
 1500 ARRIVE AT AREA 13  
 1600 SURVEY COMPLETE, VEHICLE HAS DEVELOPED A SLOW AIR LEAK IN RIGHT FRONT TIRE. LEAVING THE FIELD AT THIS TIME TO HAVE TIRE REPAIRED.  
 1900 ARRIVE AT HOTEL, SECURE  
 (b) (6) HAS MULTIPLE (b) (6)  
 (b) (6) GPS POINTS LOGGED MARKING (b) (6)  
 4.2" MORTAR LOCATIONS  
 WX050

FRI 8 OCT 2010

0630 LOAD OUT VEHICLE + DEPART HOTEL.

0910 ARRIVE AT AREA 8

0940 SAFETY BRIEF

0950 BEGIN SURVEY

1155 SURVEY COMPLETE, MOVING TO NEW AREA

1430 ARRIVE AT AREA 14

1450 BEGIN SURVEY

1635 FINISH SURVEY, DEPART FOR HOTEL

1700 ARRIVE AT HOTEL, WORKING ON EQUIPMENT

PACK UP

1800 SECURE

(b) (6)

WX050

WFS



Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Project FORT BLISS 57

---

---

Digitized by srujanika@gmail.com

---

Digitized by srujanika@gmail.com

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook.

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J.L. Darling Corporation.

## CONTENTS

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J.L. Darling Corporation.

10/4/2010 AREA 9

9:00 MEETING WITH (b) (6)

10:40 ARRIVED AREA 9

11:05 EQUIPMENT SET UP

11:10 SAFETY BRIEF

11:20 STARTED SWEEP

13:20 FINISHED SWEEP STARTED LUNCH

13:50 FINISHED LUNCH

15:20 SAMPLING STARTED

16:20 SAMPLING ~~FINISHED~~ FINISHED

16:25 SWEEP FINISH

16:45 MOVED TO AREA 10

17:00 STARTED SWEEP

17:30 LAY OUT SAMPLE AREA

17:55 SAMPLING

18:15 INVESTIGATIVE SAMPLING COMPLETE

18:35 FINISH DAY

10/5/2010

7:10 LOOKING FOR ACCESS TO  
GRID 1/2/3/4.

7:45 MOVED TO GRID 11

08:00 TAIL GATE SAFETY BRIEF

09:00 STARTED SAMPLING

09:35 FINISHED SAMPLING  
WEATHER 20°C / 15M<sup>2</sup>  
BREEZE 8/10 CLOUD

11:50 FINISHED NORTHERN PART  
GRID 11.

12:45 ARRIVED AREA 7

12:50 LUNCH

13:20 START AREA 7

15:00 LAY OUT SAMPLING GRID

16:00 STARTED SAMPLING

16:20 FINISHED SAMPLING

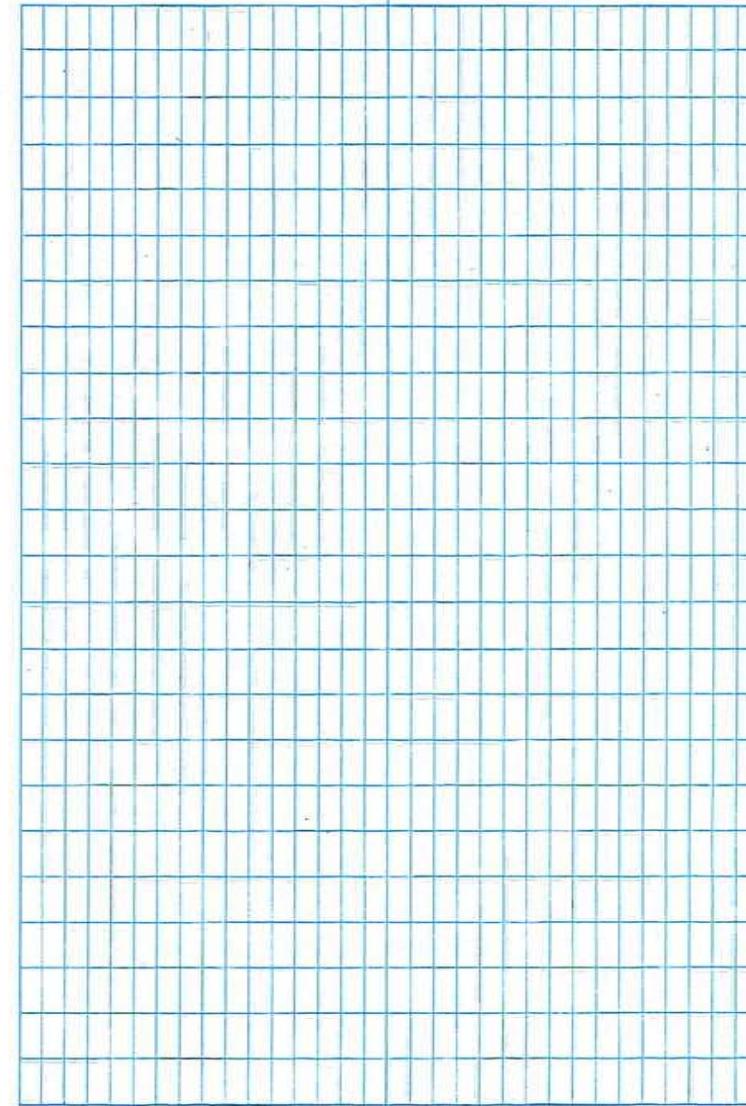
16:45 FINISHED SWEEP, AREA 7

16:55 MOVE TO S.

17:05 ARRIVE S. START GRID 5.

18:15 FINISH PART GRID 5.

18:30 FINISH DAY



6/10/2010

0725 START DAY

0815 SAFETY BRIEF

0925 START SAMPLING

1015 FINISHED

1140 FINISHED FIRST

PART OF ~~SAMPLE~~ SURVEY

1240 FINISHED SECOND PART OF SURVEY

1245 moving to next wind 15

1315 LUNCH

1345 START LAYING OUT SAMPLING AREA WIND 15

1430 FINISHED SAMPLING

1440 MOVE TO AREA 5

1725 FINISHED AREAS

1735 CHECKING ACCESS TO STATION LANDS

1800 FINISH DAY.

07/10/2010

06:30 START DAY

08:00 SAFETY BRIEF

08:05 STARTED SWEEP AREA

10:05 FINISHED SWEEP AND

SAMPLED AREA 2

SUN VERY HOT, NO CLOUDS

COVER, BAD VEGETATION

CONTINUE

10:10 MOVING TO AREA 3

10:25 UNABLE TO FIND ROUTE,

MOVING TO AREA 4

11:20 FOUND AREA 4.

11:25 STARTED AREA 4

13:40 FINISHED AREA 4

13:45 LUNCH

14:15 MOVING TO AREA 14

VIA WALKAWAY TO TOP OFF TIRE  
PRESSURE15:30 ARRIVED AREA 14A START  
SWEEP

16:30 FINISHED SWEEP

MOVING TO 14B

16:40 FOUND AREA 14B

17:50 FINISHED AREA 14B.

18:00 FINISHED DAY

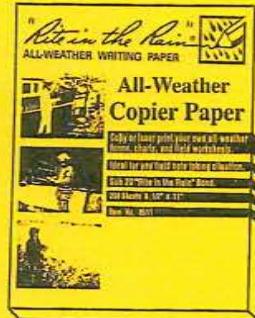
10/8/2010  
 06:30 START DAY  
 07:00 TRAVEL TO FIND HORNED LIZARD  
 AREA 3  
 07:30 NO HORNED LIZARD AREA 3  
 07:40 MOVING TO AREA 8.  
 08:10 WAITING FOR ACCESS  
 09:15 ACCESS <sup>111</sup>  
 09:40 ARRIVED AT AREA 8  
 11:58 FINISHED AREA 8  
~~NO HORNED LIZARD FOUND~~  
 MOVING TO AREA 14, NO ACCESS  
 13:15 LUNCH  
 13:30 LUNCH OVER  
 MOVING TO 14.  
 14:28 ARRIVING AREA 14  
 16:35 FINISHED 14  
 1 X LC 65 S 56 BLACK FOUND  
 16:40 EQUIPMENT PREP  
 17:30 ~~FINISHED~~ FINISH DAY

W R A CO  
30. USA

*"Rite in the Rain"*  
ALL-WEATHER WRITING PAPER



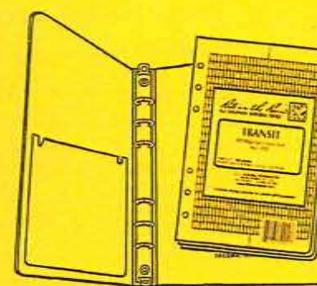
"Outdoor writing products...  
for outdoor writing people."



Copier & Ink-Jet Paper



Bound Books / Notebooks



Loose Leaf with Ring Binder



Memo Books



All-Weather Pens

CM  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16

[www.RiteintheRain.com](http://www.RiteintheRain.com)

---

## Appendix E

---

## **APPENDIX E**

### **MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOLS**

#### **FINAL SITE INSPECTION REPORT FORT BLISS EL PASO, TEXAS**

## **MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL**

The Munitions Response Site Prioritization Protocol (MRSPP) reflects the statement in 10 U.S.C. § 2710(b)(2) that the priority assigned should be based on the overall conditions at each location, taking into consideration various factors relating to safety and environmental hazard potential. As required under 10 U.S.C. § 2710(b)(1), the priority assigned to each munitions response site will be included with the inventory information made publicly available. The requirement for an inventory of munitions response sites known or suspected of containing unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC) is found at 10 U.S.C. § 2710(a). The assigned priority will be updated annually to reflect new information that becomes available. In compliance with Code of Federal Regulations (CFR) §179.5, the MRSPP scores are considered interim pending stakeholder input.

### **Description**

The Munitions Response Site Prioritization Protocol evaluates the following potential explosive safety and environmental hazards:

- Explosive hazards posed by unexploded ordnance (UXO) and discarded military munitions (DMM)
- Hazards associated with the effects of chemical warfare materiel (CWM)
- The chronic health and environmental hazards posed by munitions constituents (MC) or other chemical constituents.

DoD recognizes the different hazards inherent to each class of materials. To address these differences, the Protocol has three hazard evaluation modules, each of which is specific to one type of hazard, specifically:

- Explosive hazards are evaluated using the Explosives Hazard Evaluation (EHE) module
- CWM-related hazards are evaluated using the Chemical Warfare Materiel Hazard Evaluation (CHE) module
- Health and environmental hazards posed by MC are evaluated using the Health Hazard Evaluation (HHE) module.

DoD recognized that sufficient data to apply all three of the hazard evaluation modules may not be immediately available for some munitions response sites. In such cases where data are available for only one or two of the modules, the priority will be assigned based on the modules for which sufficient data are available. This initial priority may change when additional data are collected and all three modules are evaluated. Modules for which there are insufficient data will be assigned a status of “evaluation pending”.

Upon completion of all necessary munitions responses at a munitions response site, the status “prioritization no longer required” will be assigned. The sequencing of munitions response sites for environmental restoration activities will be based primarily on the priority assigned using this Protocol, but may also reflect other relevant information, such as stakeholder concerns, economic issues, and program management considerations.

### **Evaluation**

An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

The priority assigned to each site based on the three hazard evaluation modules are summarized in Table E-1 of this Appendix. A complete list of tables for Munitions Response Prioritization Protocols is provided in Table E-2 of this Appendix. The complete prioritization protocol evaluation forms are provided in this appendix as well as electronically on a CD located in the back of this binder. In compliance with Code of Federal Regulations (CFR) §179.5, the MRSPP scores are considered interim pending stakeholder input.

**Table E-1: Prioritization Protocol Priorities for Each MR Site**

MR Site	Explosive Hazard Evaluation (EHE)		Chemical Hazard Evaluation (CHE)		Human Health Evaluation (HHE)		MRS Priority or Alternative Rating
	EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority	
<b>Former Maneuver Area A</b> FTBLS-002-R-01	C	4	No Known or Suspected CWM Hazards		No Known or Suspected HHE Hazards		4
<b>Former Maneuver Area B</b> FTBLS-002-R-02	No Known or Suspected EHE Hazard		No Known or Suspected CWM Hazards		No Known or Suspected HHE Hazards		No Known or Suspected Hazard

**Table E-2: List of Tables for Munitions Response Prioritization Protocols**

<b><u>Explosives Hazard Evaluation (EHE) Module</u></b>	
Table 1	Munitions Type Data Element Table
Table 2	Source of Hazard Data Element Table
Table 3	Location of Munitions Data Element Table
Table 4	Ease of Access Data Element Table
Table 5	Status of Property Data Element Table
Table 6	Population Density Data Element Table
Table 7	Population Near Hazard Data Element Table
Table 8	Types of Activities/Structures Data Element Table
Table 9	Ecological and/or Cultural Resources Data Element Table
Table 10	Determining the EHE Module Rating
<b><u>Chemical Warfare Materiel Hazard Evaluation (CHE) Module</u></b>	
Table 11	CWM Configuration Data Element Table
Table 12	Sources of CWM Data Element Table
Table 13	Location of CWM Data Element Table
Table 14	Ease of Access Data Element Table
Table 15	Status of Property Data Element Table
Table 16	Population Density Data Element Table
Table 17	Population Near Hazard Data Element Table
Table 18	Types of Activities/Structures Data Element Table
Table 19	Ecological and/or Cultural Resources Data Element Table
Table 20	Determining the CHE Module Rating
<b><u>Health Hazard Evaluation (HHE) Module</u></b>	
Table 21	Groundwater Data Element Table
Table 22	Surface Water – Human Endpoint Data Element Table
Table 23	Sediment – Human Endpoint Data Element Table
Table 24	Surface Water – Ecological Endpoint Data Element Table
Table 25	Sediment – Ecological Endpoint Data Element Table
Table 26	Surface Soil Data Element Table
Table 27	Supplemental Contaminant Hazard Factor Table
Table 28	Determining the HHE Module Rating
<b><u>Summary Tables</u></b>	
Table 29	MRS Priority
Table A	MRS Background Information

Note: If the scores for the EHE and CHE modules reflect that there was no known or suspected hazard, Tables 2 through 9 and Tables 12 through 19 are not included in the MRSPP.

Additionally, Table 27 is only included when the list of analytes exceeding the screening criteria is too long to include on Tables 21 through 26.

## **FORMER MANEUVER AREA A**

## MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL

<b>Installation Name:</b>	<b>Fort Bliss El Paso, Texas</b>	<b>EHE Score:</b>	<b>C</b>
<b>Site Name:</b>	<b>Former Maneuver Area A (FTBLS-002-R-01)</b>	<b>CHE Score:</b>	<b>No Known or Suspected CWM Hazard</b>
<b>Completed By:</b>	<b>TLI Solutions, Inc.</b>	<b>HHE Evaluation:</b>	<b>No Known or Suspected MC Hazard</b>
<b>Date Completed:</b>	<b>March 2011</b>	<b>Overall Priority:</b>	<b>4</b>

### Background

The Munitions Response Site Prioritization Protocol reflects the statement in 10 U.S.C. § 2710(b)(2) that the priority assigned should be based on the overall conditions at each location, taking into consideration various factors relating to safety and environmental hazard potential. As required under 10 U.S.C. § 2710(b)(1), the priority assigned to each munitions response site will be included with the inventory information made publicly available. The requirement for an inventory of munitions response sites known or suspected of containing unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC) is found at 10 U.S.C. § 2710(a). The assigned priority will be updated annually to reflect new information that becomes available.

### Description

The Munitions Response Site Prioritization Protocol evaluates the following potential explosive safety and environmental hazards:

- Explosive hazards posed by unexploded ordnance (UXO) and discarded military munitions (DMM)
- Hazards associated with the effects of chemical warfare materiel (CWM)
- The chronic health and environmental hazards posed by munitions constituents (MC) or other chemical constituents.

DoD recognizes the different hazards inherent to each class of materials. To address these differences, the Protocol has three hazard evaluation modules, each of which is specific to one type of hazard, specifically:

- Explosive hazards are evaluated using the Explosives Hazard Evaluation (EHE) module
- CWM-related hazards are evaluated using the Chemical Warfare Materiel Hazard Evaluation (CHE) module
- Health and environmental hazards posed by MC are evaluated using the Health Hazard Evaluation (HHE) module.

DoD recognized that sufficient data to apply all three of the hazard evaluation modules may not be immediately available for some munitions response sites. In such cases where data are available for only one or two of the modules, the priority will be assigned based on the modules for which sufficient data are available. This initial priority may change when additional data are collected and all three modules are evaluated. Modules for which there are insufficient data will be assigned a status of "evaluation pending".

Upon completion of all necessary munitions responses at a munitions response site, the status "prioritization no longer required" will be assigned. The sequencing of munitions response sites for environmental restoration activities will be based primarily on the priority assigned using this Protocol, but may also reflect other relevant information, such as stakeholder concerns, economic issues, and program management considerations.

**Instructions**

Enter the appropriate score for each "Classification" in the "Site Score" column. Enter the highest Site Score in the last row of each table. Follow the matrix presented in Table 10 to determine the EHE rating. Repeat this process to determine the CHE rating (Table 20) and HHE rating (Table 24).

EHE Site Scores are calculated in Tables 1 through 9. The EHE rating is calculated in Table 10. CHE Site Scores are calculated in Tables 11 through 19. The CHE rating is calculated in Table 20. HHE Site Scores are calculated in Tables 21 through 27. The HHE rating is calculated in Table 28. The Site Priority based on the three hazard evaluations (EHE, CHE, and HHE) is calculated in Table 29. The value determined in Table 29 is used to determine the priority of the site.

## Table A

### MRS Background Information

**DIRECTIONS:** Record the background information below for the MRS to be evaluated. Much of this information is available from Service and DoD databases. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the **MRS Summary**, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental nonmunitions-related contaminants (e.g., benzene, trichloroethylene) found at the MRS, and any potentially exposed human and ecological receptors. If possible, include a map of the MRS.

**Munitions Response Site Name:** Former Maneuver Area (FTBLS-002-R-01)

**Component:** U.S. Army

**Installation/Property Name:** Fort Bliss

**Location (City, County, State):** El Paso, El Paso County, Texas

**Site Name/Project Name (Project No.):** Former Maneuver Area Munitions Response (MR) Site/Military Munitions Response Program (MMRP) Site Inspection

**Date Information Entered/Updated:** March 2011 (prepared by TLI Solutions, Inc.)

**Point of Contact (Name/Phone):** (b) (6)

**Project Phase (check only one):** Site Inspection

<input type="checkbox"/> PA	<input checked="" type="checkbox"/> SI	<input type="checkbox"/> RI	<input type="checkbox"/> FS	<input type="checkbox"/> RD
<input type="checkbox"/> RA-C	<input type="checkbox"/> RIP	<input type="checkbox"/> RA-O	<input type="checkbox"/> RC	<input type="checkbox"/> LTM

**Media Evaluated (check all that apply):**

<input type="checkbox"/> Groundwater	<input type="checkbox"/> Sediment (human receptor)
<input checked="" type="checkbox"/> Surface soil	<input type="checkbox"/> Surface Water (ecological receptor)
<input type="checkbox"/> Sediment (ecological receptor)	<input type="checkbox"/> Surface Water (human receptor)

#### **MRS Summary:**

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

Fort Bliss is located in El Paso County in western Texas. The Former Maneuver Area MR Area (MRA) is a transferred site comprised of portions of two adjacent former maneuver areas that encompasses 72,520.82 acres. The MRA is located along the southern and eastern boundaries of Fort Bliss in El Paso and Hudspeth Counties. Data collected for the Historical Records Review indicates that this MRA was used for various training purposes from approximately 1939 into the 1970s. Based on the results of the Site Inspection, the MRA has been split into two MR sites. The Former Maneuver Area A MR site encompasses 24,459.18 acres and is located adjacent to the southeastern boundary of Fort Bliss. During site inspection (SI) field activities, evidence of military activity, including fragments and fuzes from 4.2-inch mortars, was identified. In addition, evidence of small arms was observed (SI Report, Section 5.1.1).

Description of Pathways for Human and Ecological Receptors: Potential exposure pathways include surface soils. Rainfall in the area is limited; therefore, transport of contaminants into the groundwater is unlikely. However, there is a potential for MEC and MD to be buried as a result of wind and water erosion. No MEC was observed during the field activities and no MC was identified in the soil samples at levels that exceeded the screening criteria. Therefore, the pathways for receptors to encounter MEC or MC are considered incomplete (SI Report, Section 6.0, Table 6-1).

Description of Receptors (Human and Ecological): Human receptors include recreational users of the area, residents, industrial and commercial users, military and installation personnel, construction workers, road and utility maintenance personnel and ranchers. Ecological receptors include plant, reptile, bird, mammal, insect, and cattle receptors (SI Report, Section 6.0, Table 6-1).

**MRSPP Score:** 4

**Table 1**  
**EHE Module: Munitions Type Data Element Table**

**DIRECTIONS:** Below are 11 classifications of munitions and their descriptions. Circle the scores that correspond with all the munitions types known or suspected to be present at the MRS.

**Note:** The terms *practice munitions*, *small arms ammunition*, *physical evidence*, and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Score
<b>Sensitive</b>	<ul style="list-style-type: none"> <li>◆ UXO that are considered most likely to function upon any interaction with exposed persons (e.g., submunitions, 40mm high-explosive [HE] grenades, white phosphorus [WP] munitions, high-explosive antitank [HEAT] munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions).</li> <li>◆ Hand grenades containing energetic filler.</li> <li>◆ Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.</li> </ul>	30
<b>High explosive (used or damaged)</b>	<ul style="list-style-type: none"> <li>◆ UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."</li> <li>◆ DMM containing a high-explosive filler that have: <ul style="list-style-type: none"> <li>▪ Been damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	<u>25</u>
<b>Pyrotechnic (used or damaged)</b>	<ul style="list-style-type: none"> <li>◆ UXO containing a pyrotechnic filler other than white phosphorus (e.g., flares, signals, simulators, smoke grenades).</li> <li>◆ DMM containing a pyrotechnic filler other than white phosphorus (e.g., flares, signals, simulators, smoke grenades) that have: <ul style="list-style-type: none"> <li>▪ Been damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	20
<b>High explosive (unused)</b>	<ul style="list-style-type: none"> <li>◆ DMM containing a high-explosive filler that: <ul style="list-style-type: none"> <li>▪ Have not been damaged by burning or detonation</li> <li>▪ Are not deteriorated to the point of instability.</li> </ul> </li> </ul>	15
<b>Propellant</b>	<ul style="list-style-type: none"> <li>◆ UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).</li> <li>◆ DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: <ul style="list-style-type: none"> <li>▪ Damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	15
<b>Bulk secondary high explosives, pyrotechnics, or propellant</b>	<ul style="list-style-type: none"> <li>◆ DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).</li> <li>◆ DMM that are bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.</li> </ul>	10
<b>Pyrotechnic (not used or damaged)</b>	<ul style="list-style-type: none"> <li>◆ DMM containing a pyrotechnic filler (i.e., red phosphorus), other than white phosphorus filler, that: <ul style="list-style-type: none"> <li>▪ Have not been damaged by burning or detonation</li> <li>▪ Are not deteriorated to the point of instability.</li> </ul> </li> </ul>	10
<b>Practice</b>	<ul style="list-style-type: none"> <li>◆ UXO that are practice munitions that are not associated with a sensitive fuze.</li> <li>◆ DMM that are practice munitions that are not associated with a sensitive fuze and that have not: <ul style="list-style-type: none"> <li>▪ Been damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	5
<b>Riot control</b>	<ul style="list-style-type: none"> <li>◆ UXO or DMM containing a riot control agent filler (e.g., tear gas).</li> </ul>	3
<b>Small arms</b>	<ul style="list-style-type: none"> <li>◆ Used munitions or DMM that are categorized as small arms ammunition. (Physical evidence or historical evidence that no other types of munitions [e.g., grenades, subcaliber training rockets, demolition charges] were used or are present on the MRS is required for selection of this category.)</li> </ul>	<u>2</u>
<b>Evidence of no munitions</b>	<ul style="list-style-type: none"> <li>◆ Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.</li> </ul>	0
<b>MUNITIONS TYPE</b>	<b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 30).	<u>25</u>

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Munitions Type** classifications in the space provided.

Munitions reported to have been used at the site include blanks or small arms associated with the use of M1(.30 caliber), M2(.50 caliber), M16(5.56mm), M14(7.62mm) rifles and pyrotechnics of various types (SI Report, Section 3.1.1). No MEC or MC was identified during the SI visual survey, although MD including fragments and fuzes from 4.2-inch mortars was identified (SI Report, Section 5.1.1).

**Table 2**  
**EHE Module: Source of Hazard Data Element Table**

**DIRECTIONS:** Below are 11 classifications describing sources of explosive hazards. Circle the scores that correspond with all the sources of explosive hazards known or suspected to be present at the MRS.

**Note:** The terms *former range*, *practice munitions*, *small arms range*, *physical evidence*, and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Score
Former range	♦ The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include impact or target areas and associated buffer and safety zones.	10
Former munitions treatment (i.e., OB/OD) unit	♦ The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	♦ The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6
Former maneuver area	♦ The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	♦ The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	♦ The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	♦ The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	♦ The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	♦ The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	♦ The MRS is a former military range where only small arms ammunition was used. (There must be evidence that no other types of munitions [e.g., grenades] were used or are present to place an MRS into this category.)	1
Evidence of no munitions	♦ Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0
<b>SOURCE OF HAZARD</b>	<b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 10).	10

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space provided.

Munitions reported to have been used at the site include blanks or small arms associated with the use of M1(.30 caliber), M2(.50 caliber), M16(5.56mm), M14(7.62mm) rifles and pyrotechnics of various types (SI Report, Section 3.1.1). No MEC or MC were identified during the SI visual survey, although MD including fragments and fuzes from 4.2-inch mortars was identified. In addition, evidence was observed of firing areas where small arms were used. The majority of the small arms appeared to be blanks; however, one live .30-06 caliber ball cartridge was observed (SI Report, Section 5.1.1).

### Table 3

#### EHE Module: Location of Munitions Data Element Table

**DIRECTIONS:** Below are eight classifications of munitions locations and their descriptions. Circle the scores that correspond with all the locations where munitions are known or suspected to be present at the MRS.

**Note:** The terms *confirmed*, *surface*, *subsurface*, *small arms ammunition*, *physical evidence*, and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Score
<b>Confirmed surface</b>	<ul style="list-style-type: none"> <li>◆ Physical evidence indicates that there are UXO or DMM on the surface of the MRS.</li> <li>◆ Historical evidence (i.e., a confirmed report such as an explosive ordnance disposal [EOD], police, or fire department report that an incident or accident that involved UXO or DMM occurred) indicates there are UXO or DMM on the surface of the MRS.</li> </ul>	25
<b>Confirmed subsurface, active</b>	<ul style="list-style-type: none"> <li>◆ Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.</li> <li>◆ Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.</li> </ul>	20
<b>Confirmed subsurface, stable</b>	<ul style="list-style-type: none"> <li>◆ Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.</li> <li>◆ Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.</li> </ul>	15
<b>Suspected (physical evidence)</b>	<ul style="list-style-type: none"> <li>◆ There is physical evidence (e.g., munitions debris such as fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.</li> </ul>	<u>10</u>
<b>Suspected (historical evidence)</b>	<ul style="list-style-type: none"> <li>◆ There is historical evidence indicating that UXO or DMM may be present at the MRS.</li> </ul>	<u>5</u>
<b>Subsurface, physical constraint</b>	<ul style="list-style-type: none"> <li>◆ There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.</li> </ul>	2
<b>Small arms (regardless of location)</b>	<ul style="list-style-type: none"> <li>◆ The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability. (There must be evidence that no other types of munitions [e.g., grenades] were used or are present at the MRS to place an MRS into this category.)</li> </ul>	1
<b>Evidence of no munitions</b>	<ul style="list-style-type: none"> <li>◆ Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.</li> </ul>	0
<b>LOCATION OF MUNITIONS</b>	<b>DIRECTIONS:</b> Record <b>the single highest score</b> from above in the box to the right (maximum score = 25).	10

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Location of Munitions** classifications in the space provided.

Munitions reported to have been used at the site include blanks or small arms associated with the use of M1(.30 caliber), M2(.50 caliber), M16(5.56mm), M14(7.62mm) rifles and pyrotechnics of various types (SI Report, Section 3.1.1). No MEC or MC were identified during the SI visual survey, although MD including fragments and fuzes from 4.2-inch mortars was identified. In addition, evidence was observed of firing areas where small arms were used. The majority of the small arms appeared to be blanks; however, one live .30-06 caliber ball cartridge was observed (SI Report, Section 5.1.1).

**Table 4**  
**EHE Module: Ease of Access Data Element Table**

**DIRECTIONS:** Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to the MRS. Circle the score that corresponds with the ease of access to the MRS.

**Note:** The term *barrier* is defined in Appendix C of the Primer.

Classification	Description	Score
No barrier	♦ There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible).	<b>10</b>
Barrier to MRS access is incomplete	♦ There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete but not monitored	♦ There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	♦ There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0
EASE OF ACCESS	<b>DIRECTIONS:</b> Record <b>the single highest score</b> from above in the box to the right (maximum score = 10).	<b>10</b>

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Ease of Access** classification in the space provided.

The Former Maneuver Area A MR site is located outside of the Fort Bliss installation on land that is owned by private, commercial, and State of Texas entities. Several fences with locked gates cross the site, the site is accessible to the public.

## Table 5

### EHE Module: Status of Property Data Element Table

**DIRECTIONS:** Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Circle the score that corresponds with the status of property at the MRS.

Classification	Description	Score
Non-DoD control	<ul style="list-style-type: none"> <li>◆ The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.</li> <li>◆ The MRS is at a location that is owned by DoD, but that DoD has leased to another entity and for which DoD does not control access 24 hours per day.</li> </ul>	<b>5</b>
Scheduled for transfer from DoD control	<ul style="list-style-type: none"> <li>◆ The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the Protocol is applied.</li> </ul>	3
DoD control	<ul style="list-style-type: none"> <li>◆ The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.</li> </ul>	0
<b>STATUS OF PROPERTY</b>	<p><b>DIRECTIONS:</b> Record <b>the single highest score</b> from above in the box to the right (maximum score = 5).</p>	

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Status of Property** classification in the space provided.

The Former Maneuver Area A MR site is a transferred site. The entire site is located on land owned by private, commercial, and State of Texas entities.

## Table 6

### EHE Module: Population Density Data Element Table

**DIRECTIONS:** Below are three classifications for population density and their descriptions. Determine the population density per square mile that most closely corresponds with the population of the MRS, including the area within a two-mile radius of the MRS's perimeter. Circle the most appropriate score.

**Note:** Use the U.S. Census Bureau tract data available to capture the highest population density within a two-mile radius of the perimeter of the MRS.

Classification	Description	Score
> 500 persons per square mile	<ul style="list-style-type: none"> <li>There are more than 500 persons per square mile in the U.S. Census Bureau tract in which the MRS is located.</li> </ul>	5
100–500 persons per square mile	<ul style="list-style-type: none"> <li>There are 100 to 500 persons per square mile in the U.S. Census Bureau tract in which the MRS is located.</li> </ul>	<u>3</u>
< 100 persons per square mile	<ul style="list-style-type: none"> <li>There are fewer than 100 persons per square mile in the U.S. Census Bureau tract in which the MRS is located.</li> </ul>	1
POPULATION DENSITY	<p><b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 5).</p>	

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Population Density** classification in the space provided.

Although the U.S. Census data for 2006 indicates a population density for El Paso of 670.9 persons per square mile within a two mile radius of the perimeter of the MRS, the population within the MRS boundary is generally sparse. The score takes into account the sparseness of the population within the MRS and the MRS' proximity to Fort Bliss and El Paso, TX.

**Table 7**  
**EHE Module: Population Near Hazard Data Element Table**

**DIRECTIONS:** Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the potential population near the MRS. Determine the number of inhabited structures within two miles of the MRS boundary and circle the score that corresponds with the number of inhabited structures.

**Note:** The term *inhabited structures* is defined in Appendix C of the Primer.

Classification	Description	Score
<b>26 or more inhabited structures</b>	• There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	<u>5</u>
<b>16 to 25 inhabited structures</b>	• There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
<b>11 to 15 inhabited structures</b>	• There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
<b>6 to 10 inhabited structures</b>	• There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
<b>1 to 5 inhabited structures</b>	• There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
<b>0 inhabited structures</b>	• There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
<b>POPULATION NEAR HAZARD</b>	<b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 5).	5

**DIRECTIONS:** Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space provided.

Although the majority of the site is undeveloped, several residences and the Hueco Tanks State Historic Site are located within the site and inhabited structures including residences and buildings associated with commercial activities are located within two miles of the site.

## Table 8

### EHE Module: Types of Activities/Structures Data Element Table

**DIRECTIONS:** Below are five classifications of activities and/or inhabited structures and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and circle the scores that correspond with all the activities/structure classifications at the MRS.

**Note:** The term *inhabited structure* is defined in Appendix C of the Primer.

Classification	Description	Score
Residential, educational, commercial, or subsistence	<ul style="list-style-type: none"> <li>◆ Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.</li> </ul>	<u>5</u>
Parks and recreational areas	<ul style="list-style-type: none"> <li>◆ Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.</li> </ul>	<u>4</u>
Agricultural, forestry	<ul style="list-style-type: none"> <li>◆ Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.</li> </ul>	<u>3</u>
Industrial or warehousing	<ul style="list-style-type: none"> <li>◆ Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.</li> </ul>	<u>2</u>
No known or recurring activities	<ul style="list-style-type: none"> <li>◆ There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.</li> </ul>	<u>1</u>
<b>TYPES OF ACTIVITIES/STRUCTURES</b>	<b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 5).	<u>5</u>

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Types of Activities/Structures** classifications in the space provided.

According to the El Paso City website, there are Community and Regional Commercial, Ranch & Farm and Planned Residential zoning areas in the western portion of the MR site. The website also states that the eastern portion of El Paso County encompasses rural/residential and rural/agricultural lands. Although the majority of the site is undeveloped, the land is used for recreational purposes such as hunting. The Former Maneuver Area A MR site is also used for residential housing, cattle grazing, and gravel mining operations.

## Table 9

### EHE Module: Ecological and/or Cultural Resources Data Element Table

**DIRECTIONS:** Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and circle the score that corresponds with the ecological and/or cultural resources present on the MRS.

**Note:** The terms *ecological resources* and *cultural resources* are defined in Appendix C of the Primer.

Classification	Description	Score
<b>Ecological and cultural resources present</b>	◆ There are both ecological and cultural resources present on the MRS.	<b>5</b>
<b>Ecological resources present</b>	◆ There are ecological resources present on the MRS.	3
<b>Cultural resources present</b>	◆ There are cultural resources present on the MRS.	3
<b>No ecological or cultural resources present</b>	◆ There are no ecological resources or cultural resources present on the MRS.	0
<b>ECOLOGICAL AND/OR CULTURAL RESOURCES</b>	<b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 5).	<b>5</b>

**DIRECTIONS:** Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space provided.

There are numerous federal and/or state listed species of concern, threatened, and/or endangered species known to occur and/or to potentially occur within the MR site. These include 9 plant, 3 reptile, 16 bird, 15 mammal and 2 insect species. The MR site is located in proximity to the Hueco Tanks State Historic Site. Resources at the park include a historic adobe ranch house and stone ruins, 29 prehistoric archeological localities and 273 rock panels with approximately 3000 pictographs.

**Table 10**  
**Determining the EHE Module Rating**

	Source	Score	Value		
<b>DIRECTIONS:</b>	<b>Explosive Hazard Factor Data Elements</b>				
1. From Tables 1–9, record the data element scores in the <b>Score</b> boxes to the right.	Munitions Type	Table 1	25		
	Source of Hazard	Table 2	10		
2. Add the <b>Score</b> boxes for each of the three factors and record this number in the <b>Value</b> boxes to the right.	<b>Accessibility Factor Data Elements</b>				
	Location of Munitions	Table 3	10		
	Ease of Access	Table 4	10		
	Status of Property	Table 5	5		
3. Add the three <b>Value</b> boxes and record this number in the <b>EHE Module Total</b> box below.	<b>Receptor Factor Data Elements</b>				
	Population Density	Table 6	3		
4. Circle the appropriate range for the <b>EHE Module Total</b> below.	Population Near Hazard	Table 7	5		
	Types of Activities/Structures	Table 8	5		
5. Circle the <b>EHE Module Rating</b> that corresponds to the range selected and record this value in the <b>EHE Module Rating</b> box found at the bottom of the table.	Ecological and/or Cultural Resources	Table 9	5		
	<b>EHE MODULE TOTAL</b>		78		
<b>Note:</b>	<b>EHE Module Total</b>	<b>EHE Module Rating</b>			
	92 to 100	A			
	82 to 91	B			
	71 to 81	<u>C</u>			
	60 to 70	D			
	48 to 59	E			
	38 to 47	F			
	less than 38	G			
	Evaluation Pending				
	Alternative Module Ratings				
	No Longer Required				
	No Known or Suspected Explosive Hazard				
	<b>EHE MODULE RATING</b>		<b>C</b>		

**Table 11**  
**CHE Module: CWM Configuration Data Element Table**

**DIRECTIONS:** Below are seven classifications of CWM configuration and their descriptions. Circle the scores that correspond with all the CWM configurations known or suspected to be present at the MRS.

**Note:** The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Score
<b>CWM, that are either UXO, or explosively configured damaged DMM</b>	<p>The CWM known or suspected of being present at the MRS are:</p> <ul style="list-style-type: none"> <li>◆ CWM that are UXO (i.e., CWM/UXO)</li> <li>◆ Explosively configured CWM that are DMM (i.e., CWM/DMM) that have been damaged.</li> </ul>	30
<b>CWM mixed with UXO</b>	<ul style="list-style-type: none"> <li>◆ The CWM known or suspected of being present at the MRS are undamaged CWM/DMM or CWM not configured as a munition that are commingled with conventional munitions that are UXO.</li> </ul>	25
<b>CWM, explosive configuration that are undamaged DMM</b>	<ul style="list-style-type: none"> <li>◆ The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.</li> </ul>	20
<b>CWM/DMM, not explosively configured or CWM, bulk container</b>	<p>The CWM known or suspected of being present at the MRS are:</p> <ul style="list-style-type: none"> <li>◆ Nonexplosively configured CWM/DMM either damaged or undamaged</li> <li>◆ Bulk CWM (e.g., ton container).</li> </ul>	15
<b>CAIS K941 and CAIS K942</b>	<ul style="list-style-type: none"> <li>◆ The CWM/DMM known or suspected of being present at the MRS are CAIS K941-toxic gas set M-1 or CAIS K942-toxic gas set M-2/E11.</li> </ul>	12
<b>CAIS (chemical agent identification sets)</b>	<ul style="list-style-type: none"> <li>◆ CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.</li> </ul>	10
<b>Evidence of no CWM</b>	<ul style="list-style-type: none"> <li>◆ Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.</li> </ul>	0
<b>CWM CONFIGURATION</b>	<p><b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 30).</p>	0
<p><b>DIRECTIONS:</b> Document any MRS-specific data used in selecting the <b>CWM Configuration</b> classifications in the space provided.</p> <p>No historical or visual evidence indicates that CWM is or was present at this MRS.</p>		

**Tables 12 through 19 are intentionally omitted  
according to Active Army Guidance**

## Table 20

### Determining the CHE Module Rating

	Source	Score	Value	
<b>DIRECTIONS:</b>	<b>CWM Hazard Factor Data Elements</b>			
1. From Tables 11–19, record the data element scores in the <b>Score</b> boxes to the right.	CWM Configuration	Table 11	0	
	Sources of CWM	Table 12	0	
2. Add the <b>Score</b> boxes for each of the three factors and record this number in the <b>Value</b> boxes to the right.	<b>Accessibility Factor Data Elements</b>			
	Location of CWM	Table 13		
3. Add the three <b>Value</b> boxes and record this number in the <b>CHE Module Total</b> box below.	Ease of Access	Table 14		
4. Circle the appropriate range for the <b>CHE Module Total</b> below.	Status of Property	Table 15		
5. Circle the <b>CHE Module Rating</b> that corresponds to the range selected and record this value in the <b>CHE Module Rating</b> box found at the bottom of the table.	<b>Receptor Factor Data Elements</b>			
	Population Density	Table 16		
	Population Near Hazard	Table 17		
	Types of Activities/Structures	Table 18		
	Ecological and/or Cultural Resources	Table 19		
	<b>CHE MODULE TOTAL</b>		0	
<b>Note:</b> An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.	<b>CHE Module Total</b>	<b>CHE Module Rating</b>		
	92 to 100	A		
	82 to 91	B		
	71 to 81	C		
	60 to 70	D		
	48 to 59	E		
	38 to 47	F		
	less than 38	G		
			Evaluation Pending	
			No Longer Required	
	<b>Alternative Module Ratings</b>		<b>No Known or Suspected CWM Hazard</b>	
	<b>CHE MODULE RATING</b>		<b>No Known or Suspected CWM Hazard</b>	

**Table 21**  
**HHE Module: Groundwater Data Element Table**

**Contaminant Hazard Factor (CHF)**

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional groundwater contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Contaminant	Maximum Concentration ( $\mu\text{g}/\text{L}$ )	Comparison Value ( $\mu\text{g}/\text{L}$ )	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum The Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

**Migratory Pathway Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**Receptor Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
<b>Potential</b>	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
<b>Limited</b>	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Groundwater MC Hazard**



**Table 22**  
**HHE Module: Surface Water – Human Endpoint Data Element Table**

**Contaminant Hazard Factor (CHF)**

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface water contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with human endpoints present in the surface water, select the box at the bottom of the table.

Contaminant	Maximum Concentration ( $\mu\text{g/L}$ )	Comparison Value ( $\mu\text{g/L}$ )	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum The Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record <u>the CHF Value</u> from above in the box to the right (maximum value = H).		

**Migratory Pathway Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record <u>the single highest value</u> from above in the box to the right (maximum value = H).	

**Receptor Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to surface water to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record <u>the single highest value</u> from above in the box to the right (maximum value = H).	
<b>No Known or Suspected Surface Water (Human Endpoint) MC Hazard</b>		<input checked="" type="checkbox"/>

## Table 23

### HHE Module: Sediment – Human Endpoint Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional sediment contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with human endpoints present in the sediment, select the box at the bottom of the table.

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum The Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to sediment to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Sediment (Human Endpoint) MC Hazard**

## Table 24

### HHE Module: Surface Water – Ecological Endpoint Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface water contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with ecological endpoints present in the surface water, select the box at the bottom of the table.

Contaminant	Maximum Concentration ( $\mu\text{g}/\text{L}$ )	Comparison Value ( $\mu\text{g}/\text{L}$ )	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum the Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to surface water to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Surface Water (Ecological Endpoint) MC Hazard**



## Table 25

### HHE Module: Sediment – Ecological Endpoint Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional sediment contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with ecological endpoints present in the sediment, select the box at the bottom of the table.

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum the Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to sediment to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Sediment (Ecological Endpoint) MC Hazard**



## Table 26

### HHE Module: Surface Soil Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface soil contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratio
Antimony	0.51	31	0.016
Barium	91	16,000	0.006
Copper	9.9	3,100	0.003
Lead	11	400	0.028
Magnesium	5,000	3,300	1.515
Potassium	2,400	N/A	N/A
Zinc	39	23,000	0.002
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum the Ratios</b>	1.570
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{\text{[Maximum Concentration of Contaminant]}}{\text{[Comparison Value for Contaminant]}}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		<b>L</b>

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	<b>H</b>
<b>Potential</b>	Contamination in surface soil has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	<b>M</b>
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	<b>L</b>
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

All results for metals in the samples collected from the site were below the screening criteria and no explosives were detected in the samples. Therefore, there is no potential for MC to migrate in the environment.

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to surface soil to which contamination has moved or can move.	<b>H</b>
<b>Potential</b>	Potential for receptors to have access to surface soil to which contamination has moved or can move.	<b>M</b>
<b>Limited</b>	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	<b>L</b>
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

All results for metals in the samples collected from the site were below the screening criteria and no explosives were detected in the samples. Therefore, there is no potential for receptors to encounter MC.

**No Known or Suspected Surface Soil MC Hazard**



## Table 28

### Determining the HHE Module Rating

**DIRECTIONS:**

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21–26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the **HHE Ratings** provided below, determine each media's rating (A–G) and record the letter in the corresponding **Media Rating** box below.

Media (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A-G)
Groundwater (Table 21)					
Surface Water/Human Endpoint (Table 22)					
Sediment/Human Endpoint (Table 23)					
Surface Water/Ecological Endpoint (Table 24)					
Sediment/Ecological Endpoint (Table 25)					
Surface Soil (Table 26)	L	L	L	LLL	G

**DIRECTIONS (cont.):**

4. Select the single highest Media Rating (A is highest; G is lowest) and enter the letter in the **HHE Module Rating** box.

**Note:**

An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

**HHE MODULE RATING**

G

**HHE Ratings (for reference only)**

Combination	Rating
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

## Alternative Module Ratings

Evaluation Pending

No Longer Required

**No Known or  
Suspected MC  
Hazard**

No analytes exceeded the site screening values as agreed upon by all stakeholders during the Site Inspection process; therefore, the MRS is recommended for No Further Action for MC (SI Report, Section 8.0).

## Table 29

### MRS Priority

**DIRECTIONS:** In the chart below, circle the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Circle the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS Priority is the single highest priority; record this relative priority in the **MRS Priority or Alternative MRS Rating** at the bottom of the table.

**Note:** An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
<u>C</u>	<b>4</b>	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		<u>No Known or Suspected CWM Hazard</u>		<u>No Known or Suspected MC Hazard</u>	
<b>MRS PRIORITY or ALTERNATIVE MRS RATING</b>				4	

## **FORMER MANEUVER AREA B**

## MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL

<b>Installation Name:</b>	<b>Fort Bliss El Paso, Texas</b>	<b>EHE Score:</b>	<b>No Known or Suspected EHE Hazard</b>
<b>Site Name:</b>	<b>Former Maneuver Area B (FTBLS-002-R-02)</b>	<b>CHE Score:</b>	<b>No Known or Suspected CWM Hazard</b>
<b>Completed By:</b>	<b>TLI Solutions, Inc.</b>	<b>HHE Evaluation:</b>	<b>No Known or Suspected HHE Hazard</b>
<b>Date Completed:</b>	<b>March 2011</b>	<b>Overall Priority:</b>	<b>No Known or Suspected Hazard</b>

### Background

The Munitions Response Site Prioritization Protocol reflects the statement in 10 U.S.C. § 2710(b)(2) that the priority assigned should be based on the overall conditions at each location, taking into consideration various factors relating to safety and environmental hazard potential. As required under 10 U.S.C. § 2710(b)(1), the priority assigned to each munitions response site will be included with the inventory information made publicly available. The requirement for an inventory of munitions response sites known or suspected of containing unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC) is found at 10 U.S.C. § 2710(a). The assigned priority will be updated annually to reflect new information that becomes available.

### Description

The Munitions Response Site Prioritization Protocol evaluates the following potential explosive safety and environmental hazards:

- Explosive hazards posed by unexploded ordnance (UXO) and discarded military munitions (DMM)
- Hazards associated with the effects of chemical warfare materiel (CWM)
- The chronic health and environmental hazards posed by munitions constituents (MC) or other chemical constituents.

DoD recognizes the different hazards inherent to each class of materials. To address these differences, the Protocol has three hazard evaluation modules, each of which is specific to one type of hazard, specifically:

- Explosive hazards are evaluated using the Explosives Hazard Evaluation (EHE) module
- CWM-related hazards are evaluated using the Chemical Warfare Materiel Hazard Evaluation (CHE) module
- Health and environmental hazards posed by MC are evaluated using the Health Hazard Evaluation (HHE) module.

DoD recognized that sufficient data to apply all three of the hazard evaluation modules may not be immediately available for some munitions response sites. In such cases where data are available for only one or two of the modules, the priority will be assigned based on the modules for which sufficient data are available. This initial priority may change when additional data are collected and all three modules are evaluated. Modules for which there are insufficient data will be assigned a status of “evaluation pending”.

Upon completion of all necessary munitions responses at a munitions response site, the status “prioritization no longer required” will be assigned. The sequencing of munitions response sites for environmental restoration activities will be based primarily on the priority assigned using this Protocol, but may also reflect other relevant information, such as stakeholder concerns, economic issues, and program management considerations.

**Instructions**

Enter the appropriate score for each “Classification” in the “Site Score” column. Enter the highest Site Score in the last row of each table. Follow the matrix presented in Table 10 to determine the EHE rating. Repeat this process to determine the CHE rating (Table 20) and HHE rating (Table 24).

EHE Site Scores are calculated in Tables 1 through 9. The EHE rating is calculated in Table 10. CHE Site Scores are calculated in Tables 11 through 19. The CHE rating is calculated in Table 20. HHE Site Scores are calculated in Tables 21 through 27. The HHE rating is calculated in Table 28. The Site Priority based on the three hazard evaluations (EHE, CHE, and HHE) is calculated in Table 29. The value determined in Table 29 is used to determine the priority of the site.

## Table A

### MRS Background Information

**DIRECTIONS:** Record the background information below for the MRS to be evaluated. Much of this information is available from Service and DoD databases. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the **MRS Summary**, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental nonmunitions-related contaminants (e.g., benzene, trichloroethylene) found at the MRS, and any potentially exposed human and ecological receptors. If possible, include a map of the MRS.

**Munitions Response Site Name:** Former Maneuver Area B (FTBLS-002-R-02)

**Component:** U.S. Army

**Installation/Property Name:** Fort Bliss

**Location (City, County, State):** El Paso, El Paso and Hudspeth Counties, Texas

**Site Name/Project Name (Project No.):** Former Maneuver Area B Munitions Response (MR) Site/Military Munitions Response Program (MMRP) Site Inspection

**Date Information Entered/Updated:** March 2011 (prepared by TLI Solutions, Inc.)

**Point of Contact (Name/Phone):** (b) (6)

**Project Phase (check only one):** Site Inspection

<input type="checkbox"/> PA	<input checked="" type="checkbox"/> SI	<input type="checkbox"/> RI	<input type="checkbox"/> FS	<input type="checkbox"/> RD
<input type="checkbox"/> RA-C	<input type="checkbox"/> RIP	<input type="checkbox"/> RA-O	<input type="checkbox"/> RC	<input type="checkbox"/> LTM

**Media Evaluated (check all that apply):**

<input type="checkbox"/> Groundwater	<input type="checkbox"/> Sediment (human receptor)
<input checked="" type="checkbox"/> Surface soil	<input type="checkbox"/> Surface Water (ecological receptor)
<input type="checkbox"/> Sediment (ecological receptor)	<input type="checkbox"/> Surface Water (human receptor)

#### **MRS Summary:**

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present. When possible, identify munitions, CWM, and MC by type:

Fort Bliss is located in El Paso County in western Texas. The Former Maneuver Area MR Area (MRA) is a transferred site comprised of portions of two adjacent former maneuver areas that encompasses 72,520.82 acres. The MRA is located along the southern and eastern boundaries of Fort Bliss in El Paso and Hudspeth Counties. Data collected for the Historical Records Review indicates that this MRA was used for various training purposes from approximately 1939 into the 1970s. Based on the results of the Site Inspection, the MRA has been split into two MR sites. The Former Maneuver Area B MRS encompasses 48,061.64 acres and encompasses areas within El Paso and Hudspeth Counties. During site inspection (SI) field activities, evidence of military activity, including evidence of small arms and an expended smoke grenade were observed (SI Report, Section 5.1.1).

Description of Pathways for Human and Ecological Receptors: Potential exposure pathways include surface soils. Rainfall in the area is limited; therefore, transport of contaminants into the groundwater is unlikely. However, there is a potential for MEC and MD to be buried as a result of wind and water erosion. No MEC was observed during the field activities and no MC was identified in the soil samples at levels that exceeded the screening criteria. Therefore, the pathways for receptors to encounter MEC or MC are considered incomplete (SI Report, Section 6.0, Table 6-1).

Description of Receptors (Human and Ecological): Human receptors include recreational users of the area, residents, industrial and commercial users, military and installation personnel, construction workers, road and utility maintenance personnel and ranchers. Ecological receptors include plant, reptile, bird, mammal, insect, and cattle receptors. (SI Report (Section 6.0, Table 6-1).

**MRSPP Score: No Known or Suspected Hazard**

**Table 1**  
**EHE Module: Munitions Type Data Element Table**

**DIRECTIONS:** Below are 11 classifications of munitions and their descriptions. Circle the scores that correspond with all the munitions types known or suspected to be present at the MRS.

**Note:** The terms *practice munitions*, *small arms ammunition*, *physical evidence*, and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Score
<b>Sensitive</b>	<ul style="list-style-type: none"> <li>◆ UXO that are considered most likely to function upon any interaction with exposed persons (e.g., submunitions, 40mm high-explosive [HE] grenades, white phosphorus [WP] munitions, high-explosive antitank [HEAT] munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions).</li> <li>◆ Hand grenades containing energetic filler.</li> <li>◆ Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.</li> </ul>	30
<b>High explosive (used or damaged)</b>	<ul style="list-style-type: none"> <li>◆ UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."</li> <li>◆ DMM containing a high-explosive filler that have: <ul style="list-style-type: none"> <li>▪ Been damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	25
<b>Pyrotechnic (used or damaged)</b>	<ul style="list-style-type: none"> <li>◆ UXO containing a pyrotechnic filler other than white phosphorus (e.g., flares, signals, simulators, smoke grenades).</li> <li>◆ DMM containing a pyrotechnic filler other than white phosphorus (e.g., flares, signals, simulators, smoke grenades) that have: <ul style="list-style-type: none"> <li>▪ Been damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	20
<b>High explosive (unused)</b>	<ul style="list-style-type: none"> <li>◆ DMM containing a high-explosive filler that: <ul style="list-style-type: none"> <li>▪ Have not been damaged by burning or detonation</li> <li>▪ Are not deteriorated to the point of instability.</li> </ul> </li> </ul>	15
<b>Propellant</b>	<ul style="list-style-type: none"> <li>◆ UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).</li> <li>◆ DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: <ul style="list-style-type: none"> <li>▪ Damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	15
<b>Bulk secondary high explosives, pyrotechnics, or propellant</b>	<ul style="list-style-type: none"> <li>◆ DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).</li> <li>◆ DMM that are bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.</li> </ul>	10
<b>Pyrotechnic (not used or damaged)</b>	<ul style="list-style-type: none"> <li>◆ DMM containing a pyrotechnic filler (i.e., red phosphorus), other than white phosphorus filler, that: <ul style="list-style-type: none"> <li>▪ Have not been damaged by burning or detonation</li> <li>▪ Are not deteriorated to the point of instability.</li> </ul> </li> </ul>	10
<b>Practice</b>	<ul style="list-style-type: none"> <li>◆ UXO that are practice munitions that are not associated with a sensitive fuze.</li> <li>◆ DMM that are practice munitions that are not associated with a sensitive fuze and that have not: <ul style="list-style-type: none"> <li>▪ Been damaged by burning or detonation</li> <li>▪ Deteriorated to the point of instability.</li> </ul> </li> </ul>	5
<b>Riot control</b>	<ul style="list-style-type: none"> <li>◆ UXO or DMM containing a riot control agent filler (e.g., tear gas).</li> </ul>	3
<b>Small arms</b>	<ul style="list-style-type: none"> <li>◆ Used munitions or DMM that are categorized as small arms ammunition. (Physical evidence or historical evidence that no other types of munitions [e.g., grenades, subcaliber training rockets, demolition charges] were used or are present on the MRS is required for selection of this category.)</li> </ul>	2
<b>Evidence of no munitions</b>	<ul style="list-style-type: none"> <li>◆ Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.</li> </ul>	<u>0</u>
<b>MUNITIONS TYPE</b>	<b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 30).	0

**DIRECTIONS:** Document any MRS-specific data used in selecting the **Munitions Type** classifications in the space provided.

Munitions reported to have been used at the site include blanks or small arms associated with the use of M1(.30 caliber), M2(.50 caliber), M16(5.56mm), M14(7.62mm) rifles and pyrotechnics of various types (SI Report, Section 3.1.1). Because no MEC was identified during SI field activities and only debris associated with small arms and one expended smoke grenade was observed, this site is recommended for No Further Action (NFA) at this time (SI Report, Section 8.0).

**Tables 2 through 9 are intentionally omitted  
according to Active Army Guidance**

**Table 10**  
**Determining the EHE Module Rating**

	Source	Score	Value		
<b>DIRECTIONS:</b>	<b>Explosive Hazard Factor Data Elements</b>				
1. From Tables 1–9, record the data element scores in the <b>Score</b> boxes to the right.	Munitions Type	Table 1	0		
	Source of Hazard	Table 2	0		
2. Add the <b>Score</b> boxes for each of the three factors and record this number in the <b>Value</b> boxes to the right.	<b>Accessibility Factor Data Elements</b>				
	Location of Munitions	Table 3			
3. Add the three <b>Value</b> boxes and record this number in the <b>EHE Module Total</b> box below.	Ease of Access	Table 4			
	Status of Property	Table 5			
4. Circle the appropriate range for the <b>EHE Module Total</b> below.	<b>Receptor Factor Data Elements</b>				
	Population Density	Table 6			
5. Circle the <b>EHE Module Rating</b> that corresponds to the range selected and record this value in the <b>EHE Module Rating</b> box found at the bottom of the table.	Population Near Hazard	Table 7			
	Types of Activities/Structures	Table 8			
	Ecological and/or Cultural Resources	Table 9			
	<b>EHE MODULE TOTAL</b>		0		
<b>Note:</b> An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.	<b>EHE Module Total</b>	<b>EHE Module Rating</b>			
	92 to 100	A			
	82 to 91	B			
	71 to 81	C			
	60 to 70	D			
	48 to 59	E			
	38 to 47	F			
	less than 38	G			
	<b>Alternative Module Ratings</b>				
	Evaluation Pending				
	No Longer Required				
			<b>No Known or Suspected Explosive Hazard</b>		
			<b>EHE MODULE RATING</b>		
			<b>No Known or Suspected Explosive Hazard</b>		

**Table 11**  
**CHE Module: CWM Configuration Data Element Table**

**DIRECTIONS:** Below are seven classifications of CWM configuration and their descriptions. Circle the scores that correspond with all the CWM configurations known or suspected to be present at the MRS.

**Note:** The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the Primer.

Classification	Description	Score
<b>CWM, that are either UXO, or explosively configured damaged DMM</b>	<p>The CWM known or suspected of being present at the MRS are:</p> <ul style="list-style-type: none"> <li>◆ CWM that are UXO (i.e., CWM/UXO)</li> <li>◆ Explosively configured CWM that are DMM (i.e., CWM/DMM) that have been damaged.</li> </ul>	30
<b>CWM mixed with UXO</b>	<ul style="list-style-type: none"> <li>◆ The CWM known or suspected of being present at the MRS are undamaged CWM/DMM or CWM not configured as a munition that are commingled with conventional munitions that are UXO.</li> </ul>	25
<b>CWM, explosive configuration that are undamaged DMM</b>	<ul style="list-style-type: none"> <li>◆ The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.</li> </ul>	20
<b>CWM/DMM, not explosively configured or CWM, bulk container</b>	<p>The CWM known or suspected of being present at the MRS are:</p> <ul style="list-style-type: none"> <li>◆ Nonexplosively configured CWM/DMM either damaged or undamaged</li> <li>◆ Bulk CWM (e.g., ton container).</li> </ul>	15
<b>CAIS K941 and CAIS K942</b>	<ul style="list-style-type: none"> <li>◆ The CWM/DMM known or suspected of being present at the MRS are CAIS K941-toxic gas set M-1 or CAIS K942-toxic gas set M-2/E11.</li> </ul>	12
<b>CAIS (chemical agent identification sets)</b>	<ul style="list-style-type: none"> <li>◆ CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.</li> </ul>	10
<b>Evidence of no CWM</b>	<ul style="list-style-type: none"> <li>◆ Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.</li> </ul>	0
<b>CWM CONFIGURATION</b>	<p><b>DIRECTIONS:</b> Record <u>the single highest score</u> from above in the box to the right (maximum score = 30).</p>	0
<p><b>DIRECTIONS:</b> Document any MRS-specific data used in selecting the <b>CWM Configuration</b> classifications in the space provided.</p> <p>No historical or visual evidence indicates that CWM is or was present at this MRS.</p>		

**Tables 12 through 19 are intentionally omitted  
according to Active Army Guidance**

## Table 20

### Determining the CHE Module Rating

	Source	Score	Value	
<b>DIRECTIONS:</b>	<b>CWM Hazard Factor Data Elements</b>			
1. From Tables 11–19, record the data element scores in the <b>Score</b> boxes to the right.	CWM Configuration	Table 11	0	
	Sources of CWM	Table 12	0	
2. Add the <b>Score</b> boxes for each of the three factors and record this number in the <b>Value</b> boxes to the right.	<b>Accessibility Factor Data Elements</b>			
	Location of CWM	Table 13		
3. Add the three <b>Value</b> boxes and record this number in the <b>CHE Module Total</b> box below.	Ease of Access	Table 14		
	Status of Property	Table 15		
4. Circle the appropriate range for the <b>CHE Module Total</b> below.	<b>Receptor Factor Data Elements</b>			
	Population Density	Table 16		
5. Circle the <b>CHE Module Rating</b> that corresponds to the range selected and record this value in the <b>CHE Module Rating</b> box found at the bottom of the table.	Population Near Hazard	Table 17		
	Types of Activities/Structures	Table 18		
	Ecological and/or Cultural Resources	Table 19		
	<b>CHE MODULE TOTAL</b>		0	
<b>Note:</b> An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.	<b>CHE Module Total</b>		<b>CHE Module Rating</b>	
	92 to 100	A		
	82 to 91	B		
	71 to 81	C		
	60 to 70	D		
	48 to 59	E		
	38 to 47	F		
	less than 38	G		
			Evaluation Pending	
			No Longer Required	
			<b><u>No Known or Suspected CWM Hazard</u></b>	
	<b>CHE MODULE RATING</b>		<b><u>No Known or Suspected CWM Hazard</u></b>	

**Table 21**  
**HHE Module: Groundwater Data Element Table**

**Contaminant Hazard Factor (CHF)**

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional groundwater contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Contaminant	Maximum Concentration ( $\mu\text{g}/\text{L}$ )	Comparison Value ( $\mu\text{g}/\text{L}$ )	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum The Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

**Migratory Pathway Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**Receptor Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
<b>Potential</b>	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
<b>Limited</b>	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Groundwater MC Hazard**



**Table 22**  
**HHE Module: Surface Water – Human Endpoint Data Element Table**

**Contaminant Hazard Factor (CHF)**

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface water contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with human endpoints present in the surface water, select the box at the bottom of the table.

Contaminant	Maximum Concentration ( $\mu\text{g/L}$ )	Comparison Value ( $\mu\text{g/L}$ )	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum The Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{\text{[Maximum Concentration of Contaminant]}}{\text{[Comparison Value for Contaminant]}}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record <u>the CHF Value</u> from above in the box to the right (maximum value = H).		

**Migratory Pathway Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record <u>the single highest value</u> from above in the box to the right (maximum value = H).	

**Receptor Factor**

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to surface water to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record <u>the single highest value</u> from above in the box to the right (maximum value = H).	
<b>No Known or Suspected Surface Water (Human Endpoint) MC Hazard</b>		<input checked="" type="checkbox"/>

## Table 23

### HHE Module: Sediment – Human Endpoint Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional sediment contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with human endpoints present in the sediment, select the box at the bottom of the table.

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum The Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to sediment to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Sediment (Human Endpoint) MC Hazard**

## Table 24

### HHE Module: Surface Water – Ecological Endpoint Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface water contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with ecological endpoints present in the surface water, select the box at the bottom of the table.

Contaminant	Maximum Concentration ( $\mu\text{g}/\text{L}$ )	Comparison Value ( $\mu\text{g}/\text{L}$ )	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum the Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to surface water to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Surface Water (Ecological Endpoint) MC Hazard**



## Table 25

### HHE Module: Sediment – Ecological Endpoint Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional sediment contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard with ecological endpoints present in the sediment, select the box at the bottom of the table.

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum the Ratios</b>	
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
<b>Potential</b>	Contamination in sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	L
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the sediment receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to sediment to which contamination has moved or can move.	H
<b>Potential</b>	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
<b>Limited</b>	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

**No Known or Suspected Sediment (Ecological Endpoint) MC Hazard**



## Table 26

### HHE Module: Surface Soil Data Element Table

#### Contaminant Hazard Factor (CHF)

**DIRECTIONS:** Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the contaminant **ratios** together, including any additional surface soil contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratio
Antimony	0.42	31	0.014
Barium	94	16,000	0.059
Copper	13	3,100	0.004
Lead	13	400	0.033
Magnesium	5,100	3,300	1.545
Potassium	2,500	N/A	N/A
Zinc	34	23,000	0.002
<b>CHF Scale</b>	<b>CHF Value</b>	<b>Sum the Ratios</b>	1.657
<b>CHF &gt; 100</b>	<b>H (High)</b>	$CHF = \sum \frac{[\text{Maximum Concentration of Contaminant}]}{[\text{Comparison Value for Contaminant}]}$	
<b>100 &gt; CHF &gt; 2</b>	<b>M (Medium)</b>		
<b>2 &gt; CHF</b>	<b>L (Low)</b>		
<b>CONTAMINANT HAZARD FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>CHF Value</b> from above in the box to the right (maximum value = H).		<b>L</b>

#### Migratory Pathway Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
<b>Evident</b>	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	<b>H</b>
<b>Potential</b>	Contamination in surface soil has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	<b>M</b>
<b>Confined</b>	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to the presence of geological structures or physical controls).	<b>L</b>
<b>MIGRATORY PATHWAY FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

All results for metals in the samples collected from the site were below the screening criteria and no explosives were detected in the samples. Therefore, there is no potential for MC to migrate in the environment.

#### Receptor Factor

**DIRECTIONS:** Circle the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
<b>Identified</b>	Identified receptors have access to surface soil to which contamination has moved or can move.	<b>H</b>
<b>Potential</b>	Potential for receptors to have access to surface soil to which contamination has moved or can move.	<b>M</b>
<b>Limited</b>	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	<b>L</b>
<b>RECEPTOR FACTOR</b>	<b>DIRECTIONS:</b> Record the <b>single highest value</b> from above in the box to the right (maximum value = H).	

All results for metals in the samples collected from the site were below the screening criteria and no explosives were detected in the samples. Therefore, there is no potential for receptors to encounter MC.

**No Known or Suspected Surface Soil MC Hazard**



**Table 28**  
Determining the HHE Module Rating

**DIRECTIONS:**

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21–26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the **HHE Ratings** provided below, determine each media's rating (A–G) and record the letter in the corresponding **Media Rating** box below.

Media (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A-G)
Groundwater (Table 21)					
Surface Water/Human Endpoint (Table 22)					
Sediment/Human Endpoint (Table 23)					
Surface Water/Ecological Endpoint (Table 24)					
Sediment/Ecological Endpoint (Table 25)					
Surface Soil (Table 26)	L	L	L	LLL	G

**DIRECTIONS (cont.):**

4. Select the single highest Media Rating (A is highest; G is lowest) and enter the letter in the **HHE Module Rating** box.

**Note:**

An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

**HHE MODULE RATING**

G

**HHE Ratings (for reference only)**

Combination	Rating
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G
Alternative Module Ratings	
Evaluation Pending	
No Longer Required	
<u>No Known or Suspected MC Hazard</u>	

No analytes exceeded the site screening values as agreed upon by all stakeholders during the Site Inspection process; therefore the MRS is recommended for No Further Action (SI Report, Section 8.0).

## Table 29

### MRS Priority

**DIRECTIONS:** In the chart below, circle the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Circle the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS Priority is the single highest priority; record this relative priority in the **MRS Priority or Alternative MRS Rating** at the bottom of the table.

**Note:** An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
<u>No Known or Suspected Explosive Hazard</u>		<u>No Known or Suspected CWM Hazard</u>		<u>No Known or Suspected MC Hazard</u>	
<b>MRS PRIORITY or ALTERNATIVE MRS RATING</b>				<u>No Known or Suspected Hazard</u>	

---

## Appendix F

---

## **APPENDIX F**

### **MUNITIONS RESPONSE SITE PRIORITIZATION PROTOCOL NOTIFICATION LETTER AND PUBLIC ANNOUNCEMENT**

#### **FINAL SITE INSPECTION REPORT FORT BLISS EL PASO, TEXAS**

Note: As of 31 March 2011, Fort Bliss had not placed the Public MRSPP Announcement in the local newspapers because funding for the advertisements was not available. Once the announcements have been published, copies will be provided as a supplement to this SI Report and if any additional information is obtained as a result of the announcement, the SI Report will be revised as appropriate.



**DEPARTMENT OF THE ARMY**  
US ARMY INSTALLATION MANAGEMENT COMMAND  
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT BLISS  
1 PERSHING ROAD  
FORT BLISS, TEXAS 79916-3803

REPLY TO  
ATTENTION OF:

February 11, 2011

Environmental Division

(b) (6)

Program Manager  
Remediation Division  
Texas Commission on Environmental Quality  
12100 Park 35 Circle, Bldg. D  
Mail Code 221  
Austin, TX 78753

Dear (b) (6)

As a lead agency and in accordance with the 32 Code of Federal Regulations 179.5 requirements, The U.S. Army, Fort Bliss, is providing this notification that a Military Munitions Response Program (MMRP) Site Inspection (SI) is being executed. The MMRP site, Former Maneuver Area 1 and 2, established during the SI process will be evaluated and scored by applying the Munitions Response Site Prioritization Protocol (MRSPP). The MRSPP evaluation criteria includes assessing types of munitions which may be potentially present, assessing land uses, determining ease of access to sites, and quantifying the number of people with access to Sites.

Sites will be initially scored and presented in the Draft SI Report. If you, or any applicable stakeholder, are interested in participating in the initial scoring process, a meeting can be setup prior to publishing the Draft SI Report. Please let us know within 30-days, if you are interested in participating in the scoring process. However, you may elect to simply review and provide input on the initial scores within the Draft SI Report. MMRP scores will be considered final in the Final SI Report.

Should you have any questions regarding the SI and the application of MRSPP, please do not hesitate to please contact: (b) (6)

(b) (6)

(b) (6)

Chief, Environmental Division  
Directorate of Public Works

Cc: TCEQ, Region 6 office

---

## Appendix G

---

## **APPENDIX G**

### **TECHNICAL PROJECT PLANNING MEETING MINUTES**

#### **FINAL SITE INSPECTION REPORT FORT BLISS EL PASO, TEXAS**

**Technical Project Planning Meeting**  
**January 26, 2011**



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



Technical Project Planning Meeting  
Military Munitions Response Program  
Fort Bliss, Texas

26 January 2011

**Project:** Military Munitions Response Program Site Inspection (2nd)  
Fort Bliss, Texas

**Points of Contact:** United States Army Environmental Command (USAEC) Environmental  
Restoration Manager: Scott Reed/210-792-3468  
United States Army Corps of Engineers – Sacramento District (USACE-SPK)  
Project Manager: Young Chong/916-557-7212  
Fort Bliss, Installation Restoration Program (IRP) Manager: Ron Baca/915-568-  
7979  
Contractor, TLI Solutions, Inc. Project Manager: Gene Barber/303-763-7188

A Technical Project Planning (TPP) meeting was held at 1:00 PM on January 26, 2011 at the Embassy Suites Hotel, El Paso Texas. Representatives from the organizations listed below met to discuss the Site Inspection (SI) activities conducted under the Military Munitions Response Program (MMRP) at the Former Maneuver Area Munitions Response (MR) site. This site is located between Loop 375 and the Hueco Mountains and north of Montana Ave.

**MEETING ATTENDEES**

Name	Organization / Title	(b) (6)
(b) (6)	USAEC/ Environmental Restoration Manager	
	Fort Bliss Office of the Staff Judge Advocate/ Environmental Attorney	
	Fort Bliss Directorate of Public Works- Environmental (DPW-E)/ Installation Restoration Program (IRP) Manager	
	U.S. Army Corps of Engineers (USACE)/ Project Manager	
	USACE-Tulsa/Project Manager	
	USACE-Tulsa/Chief, Environmental Engineering Branch	



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



Name	Organization / Title	Email	Telephone Number
(b) (6)	Texas Parks and Wildlife Department (TPWD), Hueco Tanks/Superintendent	(b) (6)	915-857-1135
	Texas Commission on Environmental Quality (TCEQ) – El Paso Office Environmental Investigator	(b) (6)	
	City of El Paso/Senior Environmental Scientist	(b) (6) (b) (6)	
	Ysleta Del Sur Pueblo/Traditional Council	(b) (6)	(b) (6)
	Ysleta Del Sur Pueblo/Traditional Council	(b) (6)	(b) (6)
	Frontera Land Alliance/Vice President	(b) (6)	(b) (6)
	TLI Solutions, Inc./Project Manager	(b) (6)	(b) (6)
	TLI Solutions, Inc./Technical Team Lead	(b) (6)	(b) (6)
	TLI Solutions, Inc./Environmental Scientist	(b) (6)	(b) (6)

The meeting began with introductions and an overview of the MRRP program by (b) (6) (b) (6), TLI Solutions, Inc. The goals of the meeting were presented and included review of the following topics: the MMRP, the MMRP SI goals and objectives, the Technical Project Planning (TPP) Process, SI activities and results, conclusions and recommendations for munitions and explosives of concern (MEC) and munitions constituents (MC), and the draft Munitions Response Site Prioritization Protocols (MRSPP). The presentation included an outline of how the MMRP process at Fort Bliss has followed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. (b) (6) also outlined the TPP process, which has been used throughout the SI to include stakeholders in the project decision-making process.

(b) (6), TLI Solutions, Inc. provided a summary of the historical information that had been included in the Final Historical Records Review (HRR) report developed for the Former Maneuver Area MR site. (b) (6) provided a general overview of the tasks that were completed during the SI field activities, including visual surveys and surface soil sampling. Field activities were executed from the 4<sup>th</sup> through 8<sup>th</sup> of October 2010.

Approximately 132.5 line miles of visual surveys were completed throughout the site. Prior to conducting visual surveys on private property, the Army obtained a Right of Entry (ROE) from the landowner that grants permission for the field work to be completed. (b) (6)

(b) (6) City of El Paso, asked for clarification on the location of the investigation areas where



the property owners refused to sign the ROE. (b) (6) noted on the figure in the presentation the areas for which ROEs were not obtained. (b) (6) also emphasized that the field team did not access areas for which ROEs were not obtained. The purpose of the visual survey is to identify the presence of any military munitions, including unexploded ordnance (UXO), discarded military munitions (DMM), munitions debris (MD), or the evidence of military activities, such as berms, gun emplacements, and maneuver areas. No intrusive work (digging) was conducted during the visual survey. The field team consisted of two qualified UXO technicians and two environmental professionals. The field team used metal detectors to assist in locating metallic objects during the visual survey. In addition, each team member carried a global positioning system (GPS) unit to log their track and document any observations.

Sixteen investigation areas were selected from within the Former Maneuver Area for visual surveys and sampling. These locations were selected based on the available historical information and present likely locations where military training activities may have occurred. Modifications to the investigation areas were made based on the executed ROEs. Visual surveys were conducted in twelve of the sixteen areas, as four of the areas were inaccessible due to road conditions or locked gates.

During the visual surveys, munitions debris including fragmentation from 4.2-inch mortars was observed in Area 4, small arms debris and evidence of military activity was observed in six areas (Areas 5, 6, 9, 10, 11, and 14), and no munitions or evidence of military activity was observed in five areas (Areas 2, 7, 8, 13, and 15). No munitions and explosives of concern were identified during the visual survey.

In addition to visual surveys, 20 soil samples were collected to determine if munitions constituents have contaminated the soils within the Former Maneuver Area MR site. Sixteen incremental samples and four composite samples were collected. The composite samples were collected in Areas 4 and 11. These samples were collected in proximity to significant MD items. The 16 IS were collected within the remaining investigative areas. (b) (6) explained that if MD was identified during the fieldwork, then an IS was taken that encompassed the area of the MD. However, if no MD was present, the IS was taken from a random location that appeared to represent the general characteristics (vegetation and terrain) of the area. Mr. Ron Baca, Fort Bliss, asked about the depth of the samples to which (b) (6) responded that the samples were taken from the surface at a depth of zero to six inches. (b) (6), USACE, pointed out that the samples were analyzed at a laboratory that is both TCEQ and Department of Defense (DoD) certified. (b) (6) confirmed that the TestAmerica laboratory in Denver, Colorado possesses both certifications. Samples were collected from locations where evidence of munitions or military activities was observed. Samples were also collected randomly from areas that had no evidence of munitions or military activities. No intrusive digging below six inches was conducted during the soil sampling. Samples were analyzed for explosives and metals based on munitions used at the site. Analytical results were compared to the screening criteria that was agreed upon by the stakeholders and presented in the Final SI Work Plan. These included comparing the metal results to 3 times the State background level as defined by TCEQ; and comparing the results for explosives to the U.S. Environmental Protection Agency Regional Screening Levels. The analytical results for metals indicated that all



concentrations are below the applicable screening criteria and no explosives were detected in any of the samples.

During the presentation of the fieldwork and results, the following discussions took place:

- (b) (6) USACE-Tulsa District, asked if all of the munitions debris identified in Area 4 was at the surface. (b) (6) confirmed that this was the case. During the field activities, the UXO technicians scanned the area with hand-held metal detectors to determine if subsurface anomalies existed and did not find evidence of subsurface metallic objects.
- (b) (6) questioned if it is unusual to identify intact fuzes during field investigations. (b) (6) responded that it is not unusual to find fuzes and that TLI personnel have identified intact fuzes during previous investigations. However, the fuzes identified during the field work for this effort did not contain any explosives and did not present a hazard according to TLI's UXO technicians.
- (b) (6) of the Ysleta Del Sur Pueblo asked which areas were tribal lands and if the field team had permission to access these lands. (b) (6) responded that Areas 5 and 8 belonged to Ysleta Del Sur Pueblo and, in addition to having the proper ROEs, a tribal representative opened a locked gate for the field team.
- (b) (6) pointed out that it would have been better to collect soil samples from evident pockmarks created by artillery impacts. (b) (6) confirmed that it would have been better; however, because the impacts occurred decades ago, the resultant pockmarks have since washed away. Samples were taken in close proximity to the munitions debris remaining in the area. (b) (6) also pointed out that no one should ever pick up a munitions item. If munitions are found, the El Paso Police Bomb Squad should be contacted.
- (b) (6) asked for clarification on how the seven metals analyzed were chosen. (b) (6) stated that, as agreed upon during the TPP meeting for the Work Plan, the metals were chosen based on an analysis of the munitions expected to be identified during field activities and the metals associated with those munitions.

(b) (6) presented the conclusions and recommendations related to the Former Maneuver Area MR site. It is recommended that the Former Maneuver Area MR site be identified as a Munitions Response Area (MRA) and be divided into two MR sites. The first site, Former Maneuver Area A, encompasses approximately 21, 317 acres including areas adjacent to the installation boundary and areas that were not accessed during the field activities that have a greater potential for historical military use. The Former Maneuver Area A MR site is recommended for additional investigation to determine if any hazard associated with past military use may exist in this area. The second site, Former Maneuver Area B, encompasses approximately 51, 204 acres and is recommended for No Further Action (NFA) at this time. The group discussed the intent of the NFA recommendation and how this recommendation may be viewed by the public. The group concurred that the intent of the NFA recommendation is that



based on the information collected about the site, there is no need for the Army to conduct any additional work in this area. However, if any munitions items are found and reported to the Army in the future, the Army will address the item and further investigate the area. The group also determined that a slide with this definition should be added to the public meeting presentation. In addition to the NFA slide, two slides will be added to the public meeting presentation: one with the Army's UXO safety program of the three R's – Recognize, Retreat, Report regarding munitions finds by the public and the other with information regarding the unexploded ordnance notification process should any munitions items be identified (i.e., contacting local law enforcement). However, it was decided that the slides did not need to be printed for inclusion in the handout.

During the presentation of the recommendations, the following discussions took place:

- (b) (6) expressed his belief that property owners present at the upcoming public meeting would question why their property was not surveyed. (b) (6) stated that the investigative areas were selected based on the historical use of the site as well as on topography as this would determine those areas most likely used by the military for training.
- It is most likely that individual property owners would also question whether their property values would be affected. It has been determined that property values traditionally have not been affected either way as a result of site inspections.
- (b) (6) stated that if this information is relayed to the public in a way that they can understand, they will trust it. They trust that the Army is trying to do the right thing.
- (b) (6), TCEQ, asked how far in advance the team attempted to obtain ROEs. USACE attempted to get the ROEs 90 days before the fieldwork began. (b) (6) also questioned whether individuals approached the field team during visual surveys to give permission to access their property. This was not the case at the Former Maneuver Area; however, it has happened in the past at other sites and there are protocols in place to handle this scenario. Written approval from USACE is still required.

## ACTION ITEMS

The following action items were identified during the meeting:

Item	Responsible Party	Due Date
Once all comments on the Stakeholder Draft Site Inspection Report are received, they will be incorporated into the report and the Final Site Inspection Report will be distributed.	TLI Solutions	February 28, 2011



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**FORT BLISS**



---

As required by the USACE Technical Project Planning process, the following is a list of stakeholders who were invited, but were unable to attend this initial meeting:

(b) (6)

**Technical Project Planning Meeting**  
**October 15, 2009**



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



Technical Project Planning Meeting  
Military Munitions Response Program  
Fort Bliss, Texas

15 October 2009

**Project:** Military Munitions Response Program Site Inspection (2nd)  
Former Maneuver Areas, Fort Bliss, Texas

**Points of Contact:** United States Army Environmental Command (USAEC) Program Manager: Mary Ellen Maly/410-436-1511  
USAEC Environmental Restoration Manager: (b) (6)  
United States Army Corps of Engineers – Sacramento District (USACE-SPK)  
Project Manager: (b) (6)  
Fort Bliss, Installation Restoration Program (IRP) Manager: (b) (6)  
(b)  
Contractor, TLI Solutions, Inc. Project Manager: (b) (6)

A Technical Project Planning (TPP) meeting was held at 1:00 PM on October 15, 2009 at the Embassy Suites Hotel, El Paso Texas. Representatives from the organizations listed below met to discuss the Site Inspection (SI) activities to be conducted under the Military Munitions Response Program (MMRP) at the Former Maneuver Area Munitions Response (MR) site. This site is located between Loop 375 and the Hueco Mountains and north of Montana Ave.

**MEETING ATTENDEES**

Name	Organization / Title	Email	Telephone Number
(b) (6)	USAEC/ Environmental Restoration Manager	(b) (6)	(b) (6)
	Fort Bliss Directorate of Public Works – Environmental Division (DPW- E)/Multimedia Compliance, Chief	(b) (6)	(b) (6)
	Fort Bliss Office of the Staff Judge Advocate (OSJA)/Environmental Attorney	(b) (6)	(b) (6)
	Fort Bliss DPW-E/IRP Manager	(b) (6)	(b) (6)
	Fort Bliss DPW- E/Archaeologist	(b) (6)	(b) (6)



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



Name	Organization / Title	Email	Telephone Number
(b) (6)			
Fort Bliss DPW- E/Historical Architect and Tribal Liaison	(b) (6)		(b) (6)
USACE-SPK/ Project Manager	(b) (6)		(b) (6)
Texas Parks and Wildlife Department (TPWD), Hueco Tanks/	(b) (6)		(b) (6)
U.S. Environmental Protection Agency, Border Office/Director	(b) (6)		(b) (6)
Texas Commission on Environmental Quality – El Paso Office Section Manager	(b) (6)		(b) (6)
Texas Commission on Environmental Quality – El Paso Office Regional Director	(b) (6)		(b) (6)
Texas Commission on Environmental Quality – El Paso Office Environmental Investigator	(b) (6)		(b) (6)
Texas Commission on Environmental Quality – Austin Office Project Manager	(b) (6)		(b) (6)
Ysleta Del Sur Pueblo/Traditional Council	(b) (6)		(b) (6)
Ysleta Del Sur Pueblo/Speaking Rock Manager			(b) (6)
Ysleta Del Sur Pueblo/Tribal Sheriff	(b) (6)		(b) (6)
Franklin Mountains Wilderness Coalition/Secretary	(b) (6)		(b) (6)
Frontier Land Alliance/Board of Directors Member	(b) (6)		(b) (6)



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



Name	Organization / Title	Email	Telephone Number
(b) (6)	TLI Solutions, Inc./ Project Manager	(b) (6)	
(b) (6)	TLI Solutions, Inc./ Technical Team Lead	(b) (6)	

The meeting began with introductions and an overview of the MRRP program by (b) (6). The presentation included an outline of how the MMRP process at Fort Bliss would follow the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process as had been agreed upon during the previous Stakeholder Meeting held in July 2009. (b) (6) also outlined the TPP process and the process for identifying stakeholders. (b) (6) expressed concern that the public at-large had not been included in the stakeholder group. (b) (6) and (b) (6) explained that at the SI level in the process, the stakeholder group generally includes the installation, state and federal regulators, local officials, and property owners. Because there are approximately 3,000 private landowners associated the site, it was determined that they would be invited to participate in the process through public meetings. (b) (6) emphasized the need to keep the local city and county governments informed regarding the progress of the project.

(b) (6) discussed the Munitions Response Site Prioritization Protocols (MRSPPs) that are developed for each site within the MMRP. (b) (6) inquired if all sites within the MMRP had been prioritized. (b) (6) explained the three components of the MRSPP and explained that the sites are not prioritized until enough data is available to complete the MRSPP (usually following completion of the SI field work).

(b) (6) provided a summary of the historical information that had been included in the Final Historical Records Review (HRR) report developed for the Former Maneuver Area MR site. (b) (6) stated that an employee of the state park had determined the location of the historic gun emplacement that was pictured in the Final HRR. It was located along the southwest corner of North Mountain within Hueco Tanks. (b) (6) indicated that they had a current photograph of the area. TLI Solutions, Inc will follow up with her regarding this location.

(b) (6) provided a general overview of the tasks that will be completed during the SI field activities, including visual surveys and surface soil sampling. The site-specific Army Draft Work Plan will be produced within the next two to three weeks. The Stakeholder Draft Work Plan will be distributed by the beginning of December 2009. The field work is tentatively scheduled to occur between the end of January and mid-February 2010. Prior to conducting the field work, Rights of Entry will need to be obtained from the private landowners whose property will be accessed for the visual survey and sampling. (b) (6) indicated that for property owned by the City of El Paso, the County of El Paso, and TPWD Hueco Tanks, the USACE Real Estate Office would send a letter outlining the tasks to be completed, the project schedule, and areas to be accessed. (b) (6) indicated this procedure would be sufficient as long as the appropriate Antiquities and Natural Resources permits had been obtained. (b) (6) inquired regarding the number of private parcels that would be accessed during the field work.



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



(b) (6) stated that although the exact number is not known at this time, it is anticipated that no more than 50 ROEs will be required. (b) (6) explained that if a property owner refuses to consent to the ROE, the property would not be included in the survey. (b) (6) indicated that the State has a process to override the ROE refusal; however, the process takes several months.

(b) (6) provided an overview of the 11 areas within the MR site that are proposed for visual surveys. A transect of approximately 5 miles will be completed within each area. The current scope of work calls for 50 line miles of visual surveys. (b) (6) noted that each transect will be completed by a team of three; therefore, a five line mile transect will actually encompass approximately 15 line miles. The group discussed the proposal and provided input into alternative locations. (b) (6) indicated that during visual surveys within Hueco Tanks, an escort would be required in certain areas. (b) (6) indicated that the area to the north of Hueco Tanks that is proposed for survey is owned by Ysleta Del Sur Pueblo. He did not anticipate any problems with this area being surveyed. (b) (6) (b) (6) provided input into other others that should be included in the visual survey. In order to address the additional areas within the available scope, the layout of the transect areas may need to be modified. The following areas were noted as possible locations for visual surveys:

1. Area to the west of Hueco Tanks – several new homes have been constructed in this area and it is anticipated that additional growth may occur. Therefore, it would be beneficial to identify any concerns with this area.
2. Southern portion of site adjacent to Highway 62 – currently, this area is not covered by any visual surveys.
3. East of installation boundary in proximity to Old Butterfield Trail – based on location of Little Tokyo and Yokohoma training areas, this area to the east of the installation boundary may have been impacted.
4. Mountainous areas along the southern and eastern boundary of the site.

(b) (6) inquired if the Section 106 process under the National Historic Preservation Act (NHPA) had been initiated. (b) (6) explained that to date, the Section 106 process had not been required during the SI phase of the MMRP, because no intrusive work has been conducted. The Section 106 process allows federal agencies to manage decisions about archaeological resources. (b) (6) indicated that they felt a Section 106 review would be required; however, they indicated they would initiate the process and provide USACE, USAEC, and TLI with the necessary information.

The group discussed the munitions constituents (MC) sampling that will occur within the site. Currently, it is proposed that 20 samples, including two Quality Control (QC) samples, will be conducted during the field activities. (b) (6) inquired if incremental sampling (IS) will be conducted. (b) (6) explained that sampling will be biased based on the identification of MEC, MD, or evidence of military activities. Three sampling protocols will be used including spoke and hub for locations adjacent to munitions items and discrete for random sample locations. (b) (6) concurred that spoke and hub sampling protocol would be appropriate for biased sample locations. Random samples would only be collected if no MEC, MD, or evidence of military activities were identified. If random samples were required,



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS



the field team would attempt to collect them from drainage areas in which MC may accumulate. (b) (6) indicated that (b) (6) felt IS should be used at the site and she would plan to make this comment if IS procedures are not indicated in the Work Plan. (b) (6) discussed that programmatically IS has not been used at the SI level within the MMRP. Therefore, it probably would not be implemented for this site, because all the MRSPPs throughout the program should use the same protocol in order to accurately rank the site. In addition, the group generally concurred that more than 20 samples may be required to successfully determine the presence or absence of MC within the site.

Based on the types of munitions used at the site, the samples will be analyzed for Target Compound List (TCL) explosives and an abbreviated list of Target Analyte List (TAL) metals. The metals will include lead, copper, zinc, antimony, potassium, magnesium, and barium. (b) (6) (b) (6) inquired if the State had any regional-specific background data that could be used. The State has developed state-wide background data, but nothing that applies specifically to the El Paso region. (b) (6) indicated that a background study should be conducted during the SI. (b) (6) indicated that for projects conducted at Formerly Used Defense Sites (FUDS) the screening levels used were three times the State background level. Therefore, the State requested that these same levels be used. (b) (6) stated that the State background data is available through the TCEQ website. (b) (6) indicated that he would discuss the need for a background study with personnel at USAEC.

The group discussed the proposed public meetings that will be held regarding the SI project. The first public meeting is scheduled to be held on December 2, 2009. Another public meeting will be held following the development of the SI report in order to discuss the findings of the project. The initial public meeting will include presentations regarding the history of the site, the proposed SI field work, and the ROE process. In addition, the public will be asked to provide any input they have regarding historical military activities in the area and any information about munitions that have been observed. The meeting will include approximately one hour of formal presentations and approximately 30 minutes for questions. Translation services will be provided. The group emphasized the need to keep the discussion simple and not to use program-specific jargon during the presentations. The use of pictures and maps/graphics will help inform the public. Postcards will be mailed to property owners regarding the public meeting. In addition, public notices will be placed in the local English and Spanish newspapers. The group also suggested that flyers could be posted in the local Montana Vista grocery store and near the community mailboxes. The group concurred that Mountain View High School would be a good location for the public meeting. Based on input from the group, it was decided that information regarding the meeting will be distributed three weeks prior to the meeting.

(b) (6) asked the stakeholder how much time is required for review of documents. (b) (6) requested a minimum of 30 days for review and (b) (6) indicated that additional time may be required. (b) (6) stated that 30-day review periods will be used; however, requests for additional time may be made to (b) (6)

(b) (6) inquired if any local labor will be used during this project. (b) (6) explained that the field effort will only require a three-person field team; however, if additional work is required in the future, local labor may be used.



**DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS**



## ACTION ITEMS

The following action items were identified during the meeting:

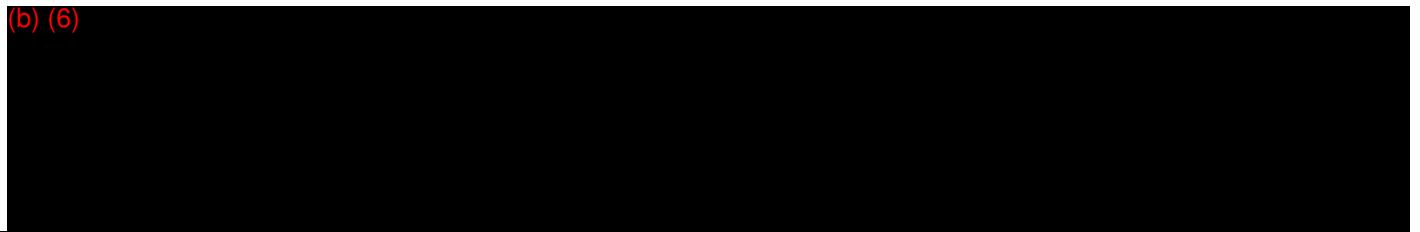
Item	Responsible Party	Due Date
Obtain current photograph of area within Hueco Tanks assumed to be location of historic gun emplacement	TLI Solutions	October 28 2009
Obtain information from TWPD regarding required Antiquities and Natural Resources permits prior to conducting field work	TLI Solutions	December 2009
Develop NHPA Section 106 documents (initial information will be provided in the Army Draft Work Plan)	Fort Bliss DPW-E Archaeologist	December 2009
Request soil constituent background data from the State of Texas	TLI Solutions	October 23, 2009
Contact Mountain View High School regarding public meeting location	TLI Solutions	October 20, 2009

As required by the USACE Technical Project Planning process, the following is a list of stakeholders who were invited, but were unable to attend this initial meeting:

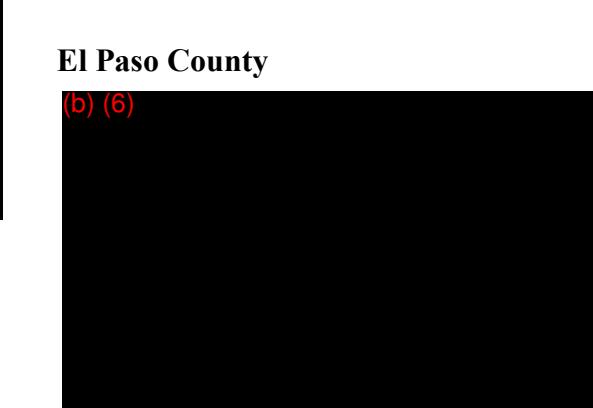
### Fort Bliss

### City of El Paso

(b) (6)

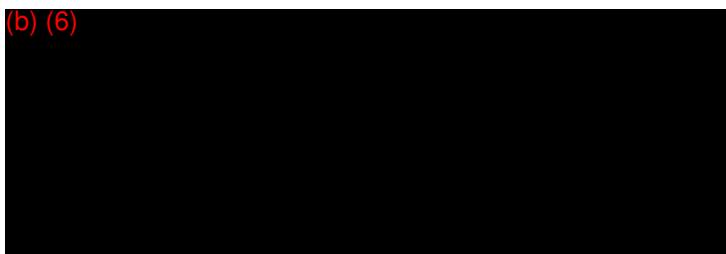


(b) (6)



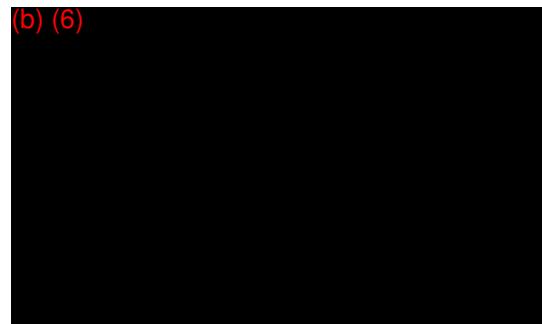
### Texas General Land Office

(b) (6)



### El Paso County

(b) (6)



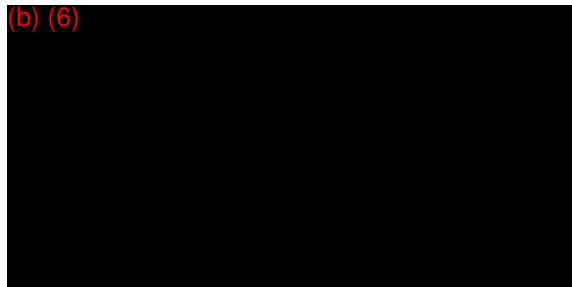


**DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
FORT BLISS**

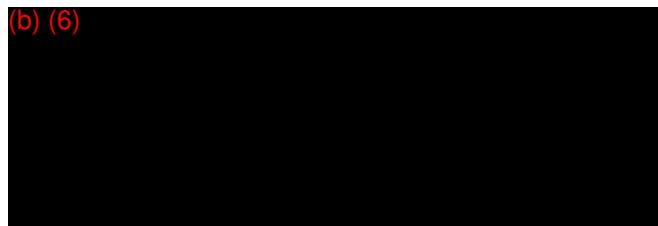


---

**Hudspeth County**



**Montana Vista**



---

## Appendix H

---

**APPENDIX H**

**PUBLIC MEETING SUMMARY NOTES**

**FINAL SITE INSPECTION REPORT**

**FORT BLISS**

**EL PASO, TEXAS**

**Public Meeting**  
**January 27, 2011**



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



**Public Meeting**  
**Military Munitions Response Program**  
**Fort Bliss, Texas**

**27 January 2011**

---

**Project:** **Military Munitions Response Program Site Inspection**  
**Former Maneuver Area, Fort Bliss, Texas**

**Points of Contact:** United States Army Environmental Command Environmental Restoration Manager: (b) (6)  
United States Army Corps of Engineers – Sacramento District Project Manager: (b) (6)  
Fort Bliss, Installation Restoration Program Manager: (b) (6)  
Contractor, TLI Solutions, Inc. Project Manager: (b) (6)

---

The Fort Bliss Directorate of Public Work – Environmental Division (DPW-E) hosted a public meeting on January 27, 2011 to present information regarding the Site Inspection (SI) under the Military Munitions Response Program (MMRP) of the Former Maneuver Area Munitions Response site. The meeting was held in the cafeteria of Mountain View High School, 14964 Greg Drive, El Paso, Texas.

(b) (6) of Fort Bliss DPW-E began the meeting with introductions and a brief overview of the information to be covered during the meeting. The SI activities associated with the Former Maneuver Area Munitions Response site are being conducted by TLI Solutions, Inc. (TLI) under contract to the United States Army Corps of Engineers – Sacramento District and in support of the United States Army Environmental Command. (b) (6) introduced (b) (6) (b) (6) and (b) (6) of TLI who continued the presentation regarding the Munitions Response site. For reference, a copy of the presentation is attached to these meeting notes.

(b) (6) began the presentation with an overview of the MMRP including the history of the development of the program in 2001 as part of the Department of Defense's Defense Environmental Restoration Program. The following information was presented by (b) (6) regarding the development of the MMRP:

The MMRP was created to specifically address human health, safety, and environmental concerns regarding explosives safety and munitions constituent contamination at defense sites. The MMRP only applies to former ranges and training areas where unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC) are known or suspected. The MMRP does not apply to operational ranges, operating storage/manufacturing facilities, or permitted treatment and disposal facilities.

The MMRP follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The initial step of the CERCLA process is the Preliminary Assessment. The



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



Former Maneuver Area was addressed during the current Site Inspection (SI), which is the second step in the CERCLA process. The MMRP SI process includes the following steps:

- Stakeholder Identification and Involvement – work with stakeholders to develop project objectives
- Historical Records Review – research and reporting
- Technical Project Planning – develop work plan to outline project activities
- Field Work and Results – conduct visual surveys and soil sampling; report results

The primary goal of the MMRP SI is to collect the appropriate amount of information necessary to determine which of the following actions will be needed at the site:

- Further Investigation
- Immediate response
- No further action at this time

Following the conclusion of the MMRP background discussion, (b) (6) presented the following summary of the historical information regarding the Former Maneuver Area Munitions Response site:

The Former Maneuver Area Munitions Response site encompasses approximately 72,500 acres located in El Paso and Hudspeth counties of Texas. Fort Bliss began acquiring land associated with the site as early as 1942. Most of the land was acquired through co-use leases. This means that Fort Bliss never owned a majority of the land. While Fort Bliss was using the land for training activities, the owners continued to live on the property and use it for ranching operations.

None of the land associated with the site is currently owned by Fort Bliss nor does Fort Bliss have any intentions to acquire the land. Most of the land was relinquished from use by Fort Bliss by 1980. However, one tract of land was under lease from the State of Texas until 1987. Current uses of the land include Hueco Tanks State Park and Historic Site, private residences, light industry, gravel mining operations, and ranching.

Training activities conducted by Fort Bliss within the Former Maneuver Area included anti-aircraft emplacement training with Browning M2 .50 caliber machine guns. Historical information indicates that planes may have flown from some landing strips within the site and that soldiers in gun emplacements constructed from sandbags would practice firing at the planes or targets towed by the planes. In addition, the soldiers completed infiltration courses, bivouacs, and maneuver training. During these operations, it is assumed that small arms and pyrotechnics were used.

Small arms are bullets .50 caliber or smaller. These munitions are similar to those used by civilian hunters. Pyrotechnics are used during training to simulate battlefield conditions by creating noise, flashes of light, and smoke. The explosive hazards associated with small arms and bullets are minimal; however, if these items are observed at any location within the Former Maneuver Area, citizens should follow these steps:



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



- Recognize – Identify the item as a munitions item without moving or handling the item
- Retreat – Move away from the location of the item
- Report – Contact the El Paso County Sheriff to report the location of the item

Once the El Paso County Sheriff's office has been contacted, they will implement their procedure for identifying and removing the item. This procedure will probably require the Sheriff to contact the Explosive Ordnance Disposal unit at Fort Bliss, which will come to the location of the item and manage its removal by either transporting the item away or blowing it up in place.

Following the summary of the history of the Former Maneuver Area, Ms. Franquemont presented information regarding the activities that were completed during the SI field activities.

Approximately 132.5 line miles of visual surveys were completed throughout the site. Prior to conducting visual surveys on private property, the Army obtained a Right of Entry from each landowner that grants permission for the field work to be completed. The purpose of the visual survey is to identify the presence of any military munitions, including UXO, DMM, or munitions debris, or the evidence of military activities, such as berms, gun emplacements, and maneuver areas. No intrusive work (digging) was conducted during the visual survey. The field team consisted of two qualified UXO technicians and two environmental professionals. The field team used metal detectors to assist in locating metallic objects during the visual survey. In addition, each team member carried a global positioning system (GPS) unit to log their track and document any observations.

In addition to visual surveys, 20 soil samples were collected to determine if munitions constituents have contaminated the soils within the Former Maneuver Area. Samples were collected from locations where evidence of munitions or military activities was observed. Samples were also collected randomly from areas that had no evidence of munitions or military activities. Samples were collected from the surface (0-6 inches). No intrusive digging was conducted during the soil sampling. Samples were analyzed for explosives and metals based on munitions used at the site. The analytical results for metals indicated that all soil sample concentrations are below the applicable screening criteria and no explosives were detected in any of the samples.

Sixteen locations were selected from within the Former Maneuver Area for visual surveys and sampling. These locations were selected based on the available historical information and represent likely locations where military training activities may have occurred. Property owners for several of the original locations did not approve the Right of Entry for their property; therefore, survey locations were moved to allow the field team access to areas where access was granted by the property owners. Visual surveys were conducted in twelve of the sixteen areas, as four of the areas were inaccessible due to road conditions or locked gates. These locations were depicted on a figure displayed during the Public Meeting (a copy of the figure is attached to these notes).



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



During the visual surveys, munitions debris including fragmentation from 4.2-inch mortars was observed in Area 4, small arms debris and evidence of military activity was observed in six areas (Areas 5, 6, 9, 10, 11, and 14), and no munitions or evidence of military activity was observed in five areas (Areas 2, 7, 8, 13, and 15). No items containing any explosive hazards were identified during the visual survey.

Based on the results of the Site Inspection, it is recommended that the Former Maneuver Area be divided into two Munitions Response Sites. The first site, Former Maneuver Area A, encompasses approximately 21, 317 acres including areas adjacent to the installation boundary and areas that were not accessed during the field activities that have a greater potential for historical military use. Former Maneuver Area A is recommended for additional investigation to determine if any hazard associated with past military use may exist in this area. The second site, Former Maneuver Area B, encompasses approximately 51, 204 acres and is recommended for no further action at this time. No further action means that based on the information collected about the site, there is no need for the Army to conduct any additional work in this area. However, if any munitions items are found and reported to the Army in the future, the Army will address the item and further investigate the area. These recommendations were depicted on a figure displayed during the Public Meeting (a copy of the figure is included with these notes).

During and following the presentation, the following questions were presented by the public:

**Q:** How long until everything is finished at this site?

**A:** According to the U.S. Army Environmental Command and U.S. Army Corps of Engineers representatives at the meeting, it will require approximately five years to complete the work at the Former Maneuver Area. It is expected that the remedial investigation will be completed in approximately three years.

**Q:** Signs have been posted along property bordering the east side of Hueco Tanks Road that indicate guns are being used in the area and no trespassing is allowed. Is this area being used by Fort Bliss and is there any danger to the public?

**A:** This property is privately-owned and is being used by a private company that provides training for security personnel. It is not associated with Fort Bliss. Also, another private firing range is located within the site to the northeast of Hueco Tanks State Park. This range is not used by Fort Bliss.

**Q:** How can property owners find out if their property was included in the visual survey?

**A:** If a property owner did not receive a request for Right of Entry from the U.S. Army Corps of Engineers, then their property was not included in the survey. Property owners can view the site maps to determine if visual surveys were conducted near their property. All site maps have been updated to include the names of major roads to assist owners in locating their property.

**Q:** How can a property owner determine if any hazards are located on their property?



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



A: At this time, there is no reason to believe that any hazardous items are located within the Former Maneuver Area Munitions Response site. However, property owners should use caution if they find suspicious items and report them to the El Paso County Sheriff.

Q: Will my property be included in future work?

A: Prior to any future work in the Former Maneuver Area A Munitions Response site, the U.S. Army Corps of Engineers will contact property owners to request Rights of Entry to their property.

Numerous questions were asked regarding how the property owners can identify the location of their property. It was suggested that the property owners contact the El Paso County Assessor's office to request information regarding their property.

**Public Meeting**  
**December 2, 2009**



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
UNITED STATES ARMY GARRISON - FORT BLISS



**Public Meeting**  
Military Munitions Response Program  
Fort Bliss, Texas

**2 December 2009**

---

**Project:** **Military Munitions Response Program Site Inspection**  
**Former Maneuver Area, Fort Bliss, Texas**

**Points of Contact:** United States Army Environmental Command (USAEC) Program Manager: Mary Ellen Maly/410-436-1511  
USAEC Environmental Restoration Manager: (b) (6)  
United States Army Corps of Engineers – Sacramento District (USACE-SPK)  
Project Manager: (b) (6)  
Fort Bliss, Directorate of Public Work – Environmental Division: (b) (6)  
(b) Contractor, TLI Solutions, Inc. Project Manager: (b) (6)

---

The Fort Bliss Directorate of Public Work – Environmental Division (DPW-E) hosted a public meeting on December 2, 2009 to present information regarding the Site Inspection (SI) under the Military Munitions Response Program (MMRP) of the Former Maneuver Area Munitions Response (MR) site. The meeting was held in the gymnasium of Mountain View High School, 14964 Greg Drive, El Paso, Texas.

(b) (6) of Fort Bliss DPW-E began the meeting with introductions and a brief overview of the information to be covered during the meeting. The SI activities associated with the Former Maneuver Area Munitions Response (MR) site are being conducted by TLI Solutions, Inc. (TLI) under contract to the United States Army Corps of Engineers – Sacramento District (USACE-SPK) and in support of the United States Army Environmental Command (USACE). (b) (6) introduced (b) (6) and (b) (6) of TLI who continued the presentation regarding the MR site. For reference, a copy of the presentation is attached to the meeting notes.

(b) (6) began the presentation with an overview of the MMRP including the history of the development of the program in 2001 as part of the Department of Defense (DoD) Defense Environmental Restoration Program (DERP). The following information was presented by (b) (6) regarding the development of the MMRP:

The MMRP was created to specifically address human health, safety and environmental concerns regarding explosives safety and munitions constituent contamination at defense sites. The MMRP only applies to former ranges and training areas where unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC) are known or suspected. The MMRP does not apply to operational ranges, operating storage/manufacturing facilities, or permitted treatment and disposal facilities.



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



The MMRP follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The initial step of the CERCLA process is the Preliminary Assessment (PA). The PA, which is also known as the MMRP Phase 3 Army Range/Site Inventory, for Fort Bliss was completed in November 2002. As a result of the PA, six sites were identified at Fort Bliss that were eligible for the MMRP. The current status of these sites is listed below.

MMRP Site Name	Acreage	Current Status
Dona Ana Range-McNew Surplus	52,410.7	Being addressed by the Formerly Used Defense Sites program
Former Maneuver Area	72,520.82	Being addressed by this Site Inspection
Winfree's Nose	1,898.4	Being addressed by the Formerly Used Defense Sites program
Closed Castner Firing Range	7,007.34	Site Inspection has been completed under the MMRP; recommended for immediate response (fencing and signage) and further characterization
Fort Bliss Dona Ana Range	17	Determined to be part of an operational range and ineligible for the MMRP
Castner Range-XD	1,338.9	Being addressed by the Formerly Used Defense Sites program

As noted in the table above, the Former Maneuver Area is the only site being addressed during the current Site Inspection (SI), which is the second step in the CERCLA process. The MMRP SI process includes the following steps:

- Stakeholder Identification and Involvement – work with stakeholders to develop project objectives
- Historical Records Review – research and reporting
- Technical Project Planning – develop work plan to outline project activities
- Field Work and Results – conduct visual surveys and soil sampling; report results

The primary goal of the MMRP SI is to collect the appropriate amount of information necessary to decide which of the following actions will be needed at the site:

- Further Investigation
- Immediate response
- No further action at this time

The secondary goals of the MMRP SI are to:

- Support program objectives such as determining cost to complete all site activities
- Develop the Munitions Response Site Prioritization Protocol (MRSPP), which sets the prioritization for working at each site in the program



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



Following the conclusion of the MMRP background discussion, (b) (6) presented the following summary of the historical information regarding the Former Maneuver Area MR site:

The Former Maneuver Area MR site encompasses approximately 72,500 acres located in El Paso and Hudspeth counties of Texas. Fort Bliss began acquiring land associated with the site as early as 1942. Most of the land was acquired through co-use leases. This means that Fort Bliss never owned a majority of the land. While Fort Bliss was using the land for training activities, the owners continued to live on the property and use it for ranging operations.

None of the land associated with the site is currently owned by Fort Bliss nor does Fort Bliss have any intentions to acquire the land. Most of the land was relinquished from use by Fort Bliss by 1980. However, one tract of land was under lease from the State of Texas until 1987. Current uses of the land include Hueco Tanks State Park and Historic Site, private residences, light industry, gravel mining operations, and ranching.

Training activities conducted by Fort Bliss within the Former Maneuver Area included anti-aircraft emplacement training with Browning M2 .50 caliber machine guns. Historical information indicates that planes may have flown from some landing strips within the site and that soldiers in gun emplacements made from sandbags would practice firing at the planes or targets towed by the planes. In addition, the soldiers completed infiltration courses, bivouacs, and maneuver training. During these operations, it is assumed that small arms and pyrotechnics were used.

Small arms are bullets .50 caliber or smaller. These munitions are similar to those used by civilian hunters. Pyrotechnics are used during training to simulate battlefield conditions by creating noise, flashes of light, and smoke. The explosive hazards associated with small arms and bullets are minimal; however, if these items are observed at any locations within the Former Maneuver Area, citizens should follow these steps:

- Recognize – Identify the item as a munitions item
- Retreat – Move away from the location of the item
- Report – Contact the El Paso County Sheriff to report the location of the item

Once the El Paso County Sheriff has been contacted, they will implement their procedure for identifying and removing the item. This procedure will probably require the Sheriff to contact the Explosive Ordnance Disposal (EOD) unit at Fort Bliss, which will come to the location of the item and manage its removal by either transporting the item away or blowing it up in place.

Following the summary of the history of the Former Maneuver Area, (b) (6) presented information regarding the activities that are planned to be completed during the SI field activities:

Approximately 50 line miles of visual surveys will be completed throughout the site. Prior to conducting visual surveys on private property, the Army will need to obtain a Right of Entry from the landowner that grants permission for the field work to be completed. The purpose of the visual survey is to identify the presence of any military munitions, including UXO, DMM, or



**DEPARTMENT OF THE ARMY**  
**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
**UNITED STATES ARMY CORPS OF ENGINEERS**  
**UNITED STATES ARMY GARRISON - FORT BLISS**



munitions debris, or the evidence of military activities, such as berms, gun emplacements, and maneuver areas. No intrusive work (digging) will be conducted during the visual survey. The field team will consist of a qualified UXO technician and two team members. The field team will use metal detectors to assist in locating metallic objects during the visual survey. In addition, each team member will carry a global positioning system (GPS) unit to log their track and document any observations. If the field team identifies any UXO or DMM, they will follow the same procedure as outlined above to recognize, retreat, and report the item.

In addition to visual surveys, up to 20 soil samples will be collected to determine if munitions constituents have contaminated the soils with the Former Maneuver Area. Samples will be collected from locations where evidence of munitions or military activities are observed. Samples will be collected from the surface (0-6 inches). No intrusive digging will be conducted during the soil sampling. Each sample will contain enough soil to fill an eight ounce jar. Samples will be analyzed for explosives and metals.

Fourteen locations have been selected from within the Former Maneuver Area for visual surveys and sampling. These locations were selected based on the available historical information and present likely locations where military training activities may have occurred. These locations were depicted on a figure shown during the Public Meeting (a copy of the figure is included in the presentation provided with these notes).

The data quality objectives of the SI field work is to collect sufficient data to determine if further investigation is warranted, an immediate response is required, or no further action is required at this time.

**(b) (6)** presented the following information regarding the Right of Entry (ROE) process:

An ROE is a voluntary legal agreement by which the property owner grants the Army permission to enter their property for a specific purpose. By signing the agreement, the property owner protects their rights, limits the Army's actions, and makes the Army responsible for its actions. The purpose of the Army's actions is to help the property owner by identifying and addressing any potential hazards caused by the Army's previous use of the land.

ROEs will be sent to the property owners whose land has been selected for visual survey and soil sampling. The ROEs will come from the United States Army Corps of Engineers. If a property owner declines to sign an ROE, their property will not be included in the SI field activities.

During and following the presentation, the following questions were presented by the public:

Q: Why has it taken the Army over 20 years to address this problem?

A: The concern regarding the potential for hazards associated with former military training activities was brought to the attention of Congress in the early 2000s. Therefore, Congress required the implementation of the MMRP in 2001. Once funding became available, the Army developed an inventory of all sites with potential hazards. This is how the Former Maneuver Area site was identified. Prior to this program, the Army addressed issues



**DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
UNITED STATES ARMY GARRISON - FORT BLISS**



---

regarding UXO and DMM on a case-specific basis as concerns were brought to their attention.

**Q:** Are there any health problems associated with the munitions?

**A:** None that we are aware of at this time. Very few sites have been identified throughout the country where the levels of munitions constituents are of concern. These sites are primarily small arms ranges where lead contamination has been identified in berms. We do not anticipate any concentration of munitions constituents within the Former Maneuver Area, because locations were used randomly and widely distributed across the site. The main concern within the site would be safety issues related to UXO and DMM.

**Q:** Does Fort Bliss still conduct training activities?

**A:** Yes, Fort Bliss is one of the Army's largest training facilities. All training activities occur within the boundary of the installation. No training activities are conducted within the Former Maneuver Area site and the Army has no plans to use the area for any training activities.

**Q:** Does Fort Bliss plan to take any private property (through eminent domain) or are they going to buy any private property within in the Former Maneuver Area MR site?

**A:** No, Fort Bliss will not be buying or taking any property within the Former Maneuver Area MR site.

**Q:** Does Fort Bliss have plans to expand?

**A:** No, at this time, Fort Bliss does not have any plans to acquire additional land or expand beyond their current installation boundary.

**Q:** Are any of the munitions constituents toxic?

**A:** Yes, in high concentrations, the constituents can be toxic. In order to identify areas with the highest concentrations of munitions constituents, sampling will be biased toward areas where UXO, DMM, munitions debris, or evidence of military activities are observed.

**Q:** Have any cancer cells been linked to munitions constituents?

**A:** We are not aware of any cases where munitions constituents have been linked to cancer. In addition, we would not anticipate any high concentrations of munitions constituents, because there was not any concentrated use of a single area within the site.

**Q:** Is the Army looking at insects to determine any potential health issues?



**DEPARTMENT OF THE ARMY  
UNITED STATES ARMY ENVIRONMENTAL COMMAND  
UNITED STATES ARMY CORPS OF ENGINEERS  
UNITED STATES ARMY GARRISON - FORT BLISS**



---

A: No, at this time, we are only trying to determine the presence or absence of contamination. If contamination is identified, a more in-depth study to determine the nature and extent of contamination will be performed. At that time, biological indicators maybe used.

Q: How does this work affect property values?

A: Work completed at other installations throughout the country has indicated that there is minimal impact on property values. There is a possibility that property values may increase, but overall there won't be much impact.

Q: Many locations with the site have already been developed. With this much construction isn't it likely that munitions would have already been found?

A: Yes, it is possible that items could be found during construction. However, it is possible that construction workers didn't identify items as munitions and simply threw them away. Also, there are large areas of the site in which construction hasn't occurred and these areas still need to be investigated.

Q: To what depth may munitions be buried?

A: Based on the use of small arms and pyrotechnics at the site, it is anticipated that most of the munitions will be on the surface. During use, these items do not have enough explosive energy penetrate the surface in the way that larger artillery shells may. However, there is a potential for munitions to be buried as a result of wind and water erosion. Dust storms are common within the area.

Q: When will the field work be conducted?

A: The current schedule is to complete the field work in Spring 2010. In order to meet the schedule, ROEs will be mailed in January.

---

## Appendix I

---

**APPENDIX I**

**SUMMARY OF RIGHTS OF ENTRY CONTACTS**

**FINAL SITE INSPECTION REPORT**  
**FORT BLISS**  
**EL PASO, TEXAS**

## Summary of Fort Bliss ROE Contacts

	Approved ROE
	Refused ROE
	Did not respond

<sup>A</sup> Notes provided by Young Chong, USACE Project Manager, regarding efforts to obtain ROEs are included in column as notations beginning with YSC.

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
Area 11	H79900100601500	6 HUECO MOUNTAIN ESTATES #1 LOT 8 (10.08 ACRES)	(b) (6) [REDACTED]	(b) (6) [REDACTED]	EL PASO	TX	79912-2746	3/25/10
Area 11	H79900100601700	6 HUECO MOUNTAIN ESTATES #1 LOT 9 (7.40 ACRES)	(b) (6) [REDACTED]	(b) (6) [REDACTED]				
Area 07	X57700012300000	77 TSP 1 SEC 23 T & P ABST 1962 (50.00 ACRES)	(b) (6) [REDACTED]	(b) (6) [REDACTED]	PFLUGERVILLE	TX	78660-4770	YSC, 14 May – No answer – left the message to call back.
Area 13	X60600000402000	6 PUBLIC SCHOOL SEC 4 ABST 6672 (100.00 ACRES)	ANTO ENTERPRISES INC	31 ROBBINS STATION RD	NORTH HUNTINGDON	PA	15642-2085	
Area 13	V87300000601100	6 VISTA DE LOMAS LOT 11 (9.2 ACRES)	(b) (6) [REDACTED]	(b) (6) [REDACTED]	EL PASO	TX	79938-0500	
Area 13	V87300000601200	6 VISTA DE LOMAS [E PT OF 12 (400' ON ST - 718.46' ON S - 400' ON W - 715.76' ON N)] (6.59 AC)	(b) (6) [REDACTED]	(b) (6) [REDACTED]				
Area 03	N/A (Hudspeth County)	Public School Block 2, Sections 4-8 and 17-19	CERRO ALTO LTD	11990 MONTANA AVE	EL PASO	TX	79936	YSC, 13 and 14 May – No answer
Area 07	X60500000200000	5 PUBLIC SCHOOL SEC 2 ABST 9178 (640 ACRES)	(b) (6) [REDACTED]	(b) (6)(b) (6) [REDACTED]	EL PASO	TX	79901-1013	Refused

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
Area 11	X57700011900000	77 TSP 1 SEC 19 T & P ABST 1960 (305.7868 AC) & (20.0002 AC) & (22.489 AC) (TOTAL 348.2760 AC)	DONA ANA FUNDING LLC  Alternate Name/Address  Cornerstone Holdings, LLC Attn: (b) (6) (Provided to USACE on 4/14)	(b) (6)	Broomfield	CO	80021	4/30/10
Area 13	V87300000600425	6 VISTA DE LOMAS PT OF 4 BEG 240' N OF SEC (121.94' ON ST - IRREG ON N- 280.40' ON W - IRREG ON S) (3.89 ACRES)	(b) (6)	(b) (6)	EL PASO	TX	79938-0504	
Area 13	V87300000601000	6 VISTA DE LOMAS LOT 10 (7.34 ACRES)						
Area 13	V87300000600700	6 VISTA DE LOMAS LOT 7 (5.20 ACRES)	(b) (6)	(b) (6)	EL PASO	TX	79938-0502	3/22/10
Area 13	V87300000600800	6 VISTA DE LOMAS LOT 8 (5.56 ACRES)	(b) (6)	(b) (6)	EL PASO	TX	79938-0502	3/22/10
Area 13	V87300000600400	6 VISTA DE LOMAS S 240' OF E 367.35' OF 4 (88164.00 SQ FT) (2.02 ACRES)	(b) (6)	(b) (6)	BELL GARDENS	CA	90201-3007	8/25/10
Area 12	X60600000105000	6 PUBLIC SCHOOL SEC 1 ABST 7357 S (160.0 AC)	(b) (6)	(b) (6)	EL PASO	TX	79913-3327	3/22/10

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
Area 13	V87300000300500	3 VISTA DE LOMAS LOT 5 (5.58 ACRESO)	HIDDEN VALLEY JOINT VENTURE	5744 N. Mesa St.	EL PASO	TX	79912-5427	We were not able to find any information for this company. However, the following business has the same address. Also, another property included within the site (but not requested for ROE) lists (b) (6) at this address as the owner. Wieland Realtors Investors (b) (6) YSC, 14 May – Left message for (b) (b) (6) to call back. 17 May – Spoke with (b) (b) (6) he will sign new ROE as soon as (b) receives it.
Area 13	V87300000400500	4 VISTA DE LOMAS LOT 5 (5.79 ACRESO)						
Area 13	V87300000400600	4 VISTA DE LOMAS LOT 6 (5.85 ACRESO)						
Area 13	V87300000400800	4 VISTA DE LOMAS LOT 8 (5.26 ACRESO)						
Area 13	X60600000300000	6 PUBLIC SCHOOL SEC 3 ABST 6673 TR 1 (255.40 ACRES)	HOT WELLS CATTLE CO	7321 NORTH LOOP DR	EL PASO	TX	79915-2523	3/25/10
Area 09	X60500001700500	5 PUBLIC SCHOOL SEC 17 ABST 7211 W 1/2 (320 ACRES)						
Area 09	X60500001800000	5 PUBLIC SCHOOL SEC 18 ABST 7212 (640.00 ACRES)						
Area 10	X60500000700000	5 PUBLIC SCHOOL SEC 7 BLK 77 (640 ACRES)						
Area 12	X60600000100000	6 PUBLIC SCHOOL SEC 1 ABST 7357 (480.00 ACRES)						

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
Area 08	X60500001100000	5 PUBLIC SCHOOL SEC 11 ABST 9844 S 1/2 (320.000 ACRES)						We were not able to locate any information regarding this company (not listed in any phone directory or the Texas Sec. of State records. However, we did find the following name and for this address. It is unclear if this person has any relationship with the company.  Randy Radcliffe  YSC, 14 May – No answer – left the message to call back
Area 08	X60500001400000	5 PUBLIC SCHOOL SEC 14 ABST 9847 (640.00 ACRES)	HOUDAL ASSOCIATES	1226 EMERALD GREEN LN	HOUSTON	TX	77094-3007	
Area 05	HUECO TANKS PARK	N/A						8/9/10
Area 06	HUECO TANKS PARK	N/A	HUECO TANKS STATE PARK (b) (6) , Superintendent	(b) (6) ROAD, #1	EL PASO	TX	79938	YSC, 13 May – Talked to (b) (6) at State Parks. Sent an email with simplified ROE. (b) (6) and State OC will review.

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
Area 06	X57700010900000	77 TSP 1 SEC 9 T & P ABST 1955 W 3/4 (1.9100 ACRES)	HUECO MOUNTAIN ESTATES INC	10530 CRETE DR	EL PASO	TX	79924-1831	YSC, 14 May – Refused. He has not found any MEC related debris and will be fencing the property. Only way to grant ROE is by the lease by government to pay for the use of property.
Area 07	I25500000230074	INDIAN HILLS SEC 23 TR 7 LOT 4 (10 ACRES)						
Area 07	I25500000230075	INDIAN HILLS SEC 23 TR 7 LOT 5 (5.255 ACRES)						
Area 07	I25500000230080	INDIAN HILLS SEC 23 TR 8 (48.5660 ACRES)						
Area 07	X60500000300000	5 PUBLIC SCHOOL SEC 3 ABST 9179 (556.652 ACRES)						
Area 11	H79900100702700	7 HUECO MOUNTAIN ESTATES #1 LOT 14 (8.95 ACRES)						
Area 11	H79900100703900	7 HUECO MOUNTAIN ESTATES #1 LOT 20 (9.72 ACRES)						
Area 11	H79900100704100	7 HUECO MOUNTAIN ESTATES #1 LOT 21 (9.03 ACRES)						
Area 11	X57700011901300	77 TSP 1 SEC 19 T & P ABST 1960 S 112 EXC SEC (271.7240 AC)						
Area 08	X60500001200000	5 PUBLIC SCHOOL SEC 12 ABS 10049 (635.679 ACRES)	JOHN & P K JOHNS CHILDRENS TRUST C/O GORDON AND MOTT	PO BOX 1322	EL PASO	TX	79947-1322	6/15/10 YSC, 14 May – Spoke to (b) (6) secretary. Also sent email with simplified ROE for (b) (6) review.
Area 08	X60500001300000	5 PUBLIC SCHOOL SEC 13 ABST 9846 (640 ACRES)						

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
Area 11	H79900100702500	7 HUECO MOUNTAIN ESTATES #1 LOT 13 (9.68 ACRES)	(b) (6)	(b) (6)	AUSTIN	TX	78751-3207	ROE returned as undeliverable. No other address was found. Property is small, so it won't need to be accessed.
Area 13	V87300000600200	6 VISTA DE LOMAS LOT 2 (6.91 ACRES)	(b) (6)	(b) (6)	EL PASO	TX	79935-3014	
Area 13	V87300000600300	6 VISTA DE LOMAS LOT 3 (6.31 ACRES)		LN				
Area 13	V87300000600450	6 VISTA DEL LOMAS NWC OF 4 (308.18 FT ON N - 81.74 FT ON E - 308.18 FT ON S - 82.14 FT ON W) (23679.96 SQ FT) (0.54 ACRES)	(b) (6)	(b) (6) DR	EL PASO	TX	79925-6330	
Area 15	M64500000010017	1 MONTE CARLO BLOCK 17	(b) (6)	(b) (6) STAGE RD	EL PASO	TX	79938	4/19/10
	M64500000020015	2 MONTE CARLO BLOCK 15						
	M64500000020016	2 MONTE CARLO BLOCK 16						
Area 01	X60100000400000	1 PUBLIC SCHOOL SEC 4 (640.00 ACRES)	PEOPLE OF THE STATE OF TEXAS c/o Burton Minton Real Estate Asset Manager General Land Office	(b) (6)	AUSTIN	TX	78701-1495	9/7/10 (estimated; approved ROE is not dated)
Area 04	X60100002000000	1 PUBLIC SCHOOL SEC 20 (640.00 ACRES)						
Area 03	X60100002300000	1 PUBLIC SCHOOL SEC 23 (640.00 ACRES)						
Area 02	X60100000900000	1 PUBLIC SCHOOL SEC 9 (640.00 ACRES)						
Area 07	X57700012200000	77 TSP 1 SEC 22 T & P SURV (632.79 ACRES)						
Areas 10 & 11	X60500000602020	5 PUBLIC SCHOOL SEC 6 ABST 7734 (640.00 ACRES)						
Area 12	X60600000200000	6 PUBLIC SCHOOL SEC 2						

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zip Code	Signed ROE Date and Notes <sup>A</sup>
		(640.00 ACRES)						
Area 14	X57900022100000	79 TSP 2 SEC 21 T & P ABST 2132 (640.00 ACRES)						
Area 14	X57900022200000	79 TSP 2 SEC 22 T & P ABST 8071 (371.70 AC)						
Area 13	X60600000400000	6 PUBLIC SCHOOL SEC 4 ABST 6672 (540.00 ACRES)	RIVERSIDE VILLAGE SHOPPING CENTER	8761 ALAMEDA AVE	EL PASO	TX	79907-6233	3/25/10
Area 13	V87300000400700	4 VISTA DE LOMAS LOT 7 (6.25 ACRES)	(b) (6)	(b) (6)	LATIMER	PA	18234-0037	4/16/10
Area 13	V87300000601300	6 VISTA DE LOMAS 13 & W PT OF 12 (357.88 FT ON N- 400.00 FT ON E-359.23 FT ON S-386.82 FT ON W) (8.2900 AC)	(b) (6)	(b) (6)	EL PASO	TX	79938-9006	
Area 13	V87300000600900	6 VISTA DE LOMAS LOT 9 (5.35 ACRES)	(b) (6)	(b) (6)	EL PASO	TX	79938-0502	
Area 05	X57700011000000	77 TSP 1 SEC 10 T & P ABST 2838 (154.8330 AC)	YSELTA DEL SUR PUEBLO COUNCIL (b) (6) GOVERNOR	(b) (6)	EL PASO	TX	79917	3/31/10  YSC, 13 May – Sent reminder email. This section is necessary if we do not receive an ROE from the Johns Childrens Trust (b) (6)
Area 05	X57700010300000	77 TSP 1 SEC 3 T & P ABST 1952 SEC OF SECTION (227.1500 AC)						
Area 08	X57700012400000	77 TSP 1 SEC 24 T&R ABST 9180 (633.9440 AC)						
Area 13	V87300000600500	6 VISTA DE LOMAS LOT 5 (6.26 ACRES)	(b) (6)	(b) (6)	HORIZON CITY	TX	79928-7021	
Area 13	V87300000600600	6 VISTA DE LOMAS LOT 6 (5.77 ACRES)						

Final Site Inspection Report, Fort Bliss, El Paso, Texas

Areas of Interest	El Paso County Parcel ID Number (PIDN)	Legal Description	Owner	Street	City	State	Zipcode	Signed ROE Date and Notes
Area 01	X60100000500000	1 PUBLIC SCHOOL SEC 5 ABST 9910 (640.00 ACRES)						
Area 01	X60100000600000	1 PUBLIC SCHOOL SEC 6 ABST 7748 (640.00 ACRES)						Refused. Young will contact lawyer to discuss.
Area 01	X60100000700000	1 PUBLIC SCHOOL SEC 7 ABST 7749 (640.00 ACRES)	(b) (6) FAMILY ENTERPRISES	(b) (6)	EL PASO	TX	79935-3623	YSC, 14 May – Spoke to (b) (6) and sent email with simplified ROE for (b) (6) review.
Areas 01 & 02	X60100000800000	1 PUBLIC SCHOOL SEC 8 ABST 7745 (640.00 ACRES)						
Area 04	X60100001900000	1 PUBLIC SCHOOL SEC 19 ABST 3247 (640.00 ACRES)						
Area 15	M64500000010017	1 MONTE CARLO BLOCK 17						
	M64500000020015	2 MONTE CARLO BLOCK 15	(b) (6)	(b) (6)	EL PASO	TX	79938	4/19/10
	M64500000020016	2 MONTE CARLO BLOCK 16		STAGE RD				

---

## Appendix J

---

**APPENDIX J**

**ELECTRONIC FILES**

**FINAL SITE INSPECTION REPORT**

**FORT BLISS**

**EL PASO, TEXAS**

Note: Electronic Files are provided on the CD located on the back of the binder.